San Francisco Bay Conservation and Development Commission
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February 12, 2016

TO: Commissioners and Alternates

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SUBJECT: **Staff Recommendation for the San Francisquito Creek Joint Powers Authority's BCDC Permit Application No. 2013.007.00 for the San Francisquito Creek Flood Protection and Ecosystem Restoration Project**
(For Commission consideration on February 18, 2016)

Recommendation Summary

The staff recommends approval of BCDC Permit Application No.2013.007.00, to the San Francisquito Creek Joint Powers Authority for the San Francisquito Creek Flood Protection and Ecosystem Restoration Project located on the border between Santa Clara and San Mateo Counties, which, as conditioned, will authorize the following activities:

(1) Removal of portions of the existing southern levee, while leaving a small section of the levee to create Friendship Island, and realigning the southern levee to allow for increased flow capacity to alleviate flooding within the Cities of East Palo Alto and Palo Alto;

(2) Repairing portions of degraded levees along the Faber Tract Marsh, restoring a portion of the Outer Faber Marsh levee to marsh plain elevation, and placing riprap in the channel along levees, in front of floodwalls and around Friendship Island for shoreline protection;

(3) Restoring and creating tidal marsh habitats along the edges of San Francisquito Creek (SFC), creating additional high tide refugia enhancements in Outer Faber Marsh and enhancing transition zone habitats along Faber Tract Marsh;

(4) Installing required public access improvements and interpretive signage both inside and outside BCDC's jurisdiction; and

(5) Maintenance of existing levee slopes and public access areas.

The San Francisquito Creek Flood Protection and Ecosystem Restoration project (SF Bay to Highway 101) will be constructed over a two-year period, during the authorized in-stream work windows from June 1st through October 15th and out-of-channel window from May 1st through October 15th, unless an extension of time is approved on behalf of the Commission. The first year of construction will include all utility line work, constructing a setback portion of the SFC south levee (Exhibit B) within the Palo Alto Golf Course (golf course), constructing floodwalls in specified locations along the creek, excavating approximately 1,470 cubic yards of sediment from within the channel, and removing approximately 37,680 square feet (3,380 cy) of fill from the Outer Faber Marsh levee. In the second year of construction, the project includes removing 60,380 square feet of fill from the existing SFC levee (leaving an approximately 13,830 square foot section to create Friendship Island), constructing 2,060 square feet (0.05 acre) of pile-supported fill for the boardwalk connecting Friendship Island to the realigned southern levee, placing approximately 56,530 square feet of riprap within the Commission's jurisdiction, and finishing construction of all floodwalls and connections with adjacent levees.

Additionally, the project will improve habitat in the creek and adjacent areas and includes: placing between 55 and 110 cy (1,250 square feet) of clean fill in Outer Faber Marsh to create high tide refugia islands; importing small amounts of clean fill and planting native vegetation along approximately 6.0 acres of levees surrounding Faber Marsh to enhance high tide refuge areas; and both creating and restoring 3.44 acres of high marsh and transition zone habitats along the edges of the San Francisquito Creek. Following the completion of all construction activities revegetation of native tidal salt marsh plants will occur between November 1st and January 31st of 2018 and the success of the habitat restoration will be monitored annually between September 1st and December 1st following the first growing season, for at least five years or until success criteria in the final approved Mitigation and Monitoring Plan are reached.

The total project site is 263.5 acres, 13.6 acres of which are within the Commission's jurisdiction along the lower reach of the San Francisquito Creek. The project itself will result in approximately 24,000 square feet of Bay fill, which includes both solid fill and pile-supported fill

(Table 1). However, with the realignment of the southern levee along the creek and the lowering of a portion of the Outer Faber levee, the project will result in a net increase in Bay surface area of approximately 25,535 square feet (0.59 acres), restore approximately 3.44 acres of tidal marsh habitats and enhance 6.0 acres of high tide refuge areas within the Commission's jurisdiction (Table 2).

Table 1. Fill Areas for the project (in square feet)

		Bay Jurisdiction (sf)		**Shoreline Band Jurisdiction (sf)**		
Description	**Type of Fill**	**To Be Removed**	**To Be Placed**	**To Be Removed**	**To Be Placed**	**Total Net Fill Area (sf)**
SFC north and south levee riprap	Solid	0	7,130	0	21,350	28,480
Friendship Island Riprap	Solid	0	2,650	0	23,690	26,340
SFC north levee outboard side	Solid	0	8,460	0	2,680	11,140
Fish passage structures (rock)	Solid	0	1,710	0	0	1,710
SFC south levee fill	Solid	0	3,530	-60,380	52,950	-3,900
Outer Faber Marsh levee degrade	Solid	-2,810	0	-34,870	0	-37,680
Earth fill for Faber Marsh levees and high tide refugia	Solid	0	1,250	0	540	1,790
Temporary Cofferdam and other construction structures	Temporary	-12,810	12,810	0	0	0
Total Solid Fill		**21,920 (9,990 cy)**		**5,960**		**27,880**
Boardwalk	Pile-Supported	0	2,060	0	0	2,060
Total Pile-Supported Fill		**2,060**				2,060
TOTAL BAY FILL (sf)		**23,980**				**29,940**

Table 2. Habitat Restoration in BCDC's jurisdiction (in acres)

Restoration Technique	Habitat Restoration Surface Area (acres)		
	Bay Jurisdiction	Shoreline Band Jurisdiction	Total
Faber Marsh			
Active Revegetation Creation			
High Marsh Habitat	0.00	0.00	
High Marsh Transition Habitat	0.00	0.80	
Active Revegetation Enhancement			
High Marsh Habitat	0.00	0.00	
*High Marsh Transition Habitat**	0.09	0.00	
Passive Re-establishment**	0.81	0.00	
Faber Marsh Tidal Habitat	0.90	0.80	**1.7**
Active Revegetation Enhancement			
Upland Berm Refugia Habitat	0.00	6.00	
Faber Marsh Total * **	**0.90**	**6.80**	**7.7**
San Francisquito Creek			
Active Revegetation Creation			
High Marsh Habitat	0.31	0.03	
High Marsh Transition Habitat	0.36	0.18	
Active Revegetation Enhancement			
High Marsh Habitat	0.54	0.00	
High Marsh Transition Habitat	0.00	0.00	
Passive Re-establishment	0.29	0.03	
San Francisquito Creek Subtotal	**1.50**	**0.24**	**1.74**
Total	**2.40**	**7.04**	**9.44**

* Includes 0.03 ac of tidal marsh within Bay Jurisdiction that will be temporarily impacted by refuge island construction and actively revegetated with native marsh vegetation.
** Includes 0.16 ac of tidal marsh within Bay Jurisdiction that will be temporarily impacted by refuge island construction access and will re-establish naturally post-construction.
*** Tidal marsh habitat and berm refugia habitat combined

Staff Recommendation

The staff recommends that the Commission adopt the following resolution:

I. Authorization

A. Subject to the conditions stated below, the permittee, the San Francisquito Creek Joint Powers Authority, is granted permission to do the following:

Location: In the Bay and within the 100-foot shoreline band, within the lower reach of the San Francisquito Creek Channel and adjacent Faber Tract Marsh, between the Counties of San Mateo and Santa Clara.

In the Bay:

1. Construct up to five, high tide refugia islands in Outer Faber Marsh by placing approximately 1,250 square feet (250 square feet per island; 0.006 acres) of imported solid fill in the Marsh. Each island would be approximately 10 feet by 30 feet in size and constructed to an initial elevation of approximately 8.8 feet (NAVD88), planted with native marsh gumplant and other tall stature wetland vegetation (Exhibit F);
2. Excavate approximately 1,470 cubic yards (cy) of sediment from an approximately 23,600-square-foot area of the creek channel and dispose of the material at an upland disposal location;
3. Remove 390 feet of abandoned sanitary sewer line within BCDC's Bay jurisdiction located near Friendship Bridge and install 810 feet of new sewer line embedded at least 6.0 feet or deeper below the channel mudline;
4. Construct an approximately 2,062-square-foot, wooden, pile-supported boardwalk (approximately 202 feet long and 10 feet wide) over the newly created marsh plain terrace to connect the abutment of the left side of Friendship Island to the newly realigned SFC south levee within the Commission's future Bay jurisdiction;
5. Construct one "steelhead passage feature" in the creek, including a permanent rock spur (partial weir), consisting of approximately 1,710 square feet of large rock and other solid fill in the channel; and
6. Place approximately 12,810 square feet of temporary solid fill during in-channel construction occurring over a two-year period, which includes:
    a. Installing an approximately 1,850-foot-long, 36-inch diameter HDPE diversion pipe along the outboard side of the SFC north levee;
    b. Constructing a temporary, steel sheet pile cofferdam, approximately 12 feet tall and 160 feet long, spanning the width of the channel;
    c. Placing gravel-filled bags around the connection between the pipe and the cofferdam walls;

d. Placing approximately 7,256 square feet of rock within the channel as an energy dissipater for the diversion pipe water outflow;

e. Dewatering the channel and creek for in-channel construction activities from June through October during each year of the two-year construction (2016-2018); and

f. Removing all temporary fill (water diversion pipes, rock and cofferdam, etc.) following the closure of the in-channel work window.

Partially Within the Bay and 100-foot Shoreline Band:

1. Place approximately 26,340 square feet of riprap around the eastern footings of Friendship Bridge (future Friendship Island);
2. Place approximately 28,480 square feet of riprap along the inboard side of the SFC north levee, along Faber Tract Marsh near Friendship Bridge, and along the inboard side of the SFC southern levee to stabilize shoreline features during increased flood flows within the creek;
3. Place approximately 11,140 square feet of clean fill along the outboard side of the SFC north levee, in the Faber Tract Marsh to stabilize and restore low portions of the levee from 11 feet (NAVD88) to approximately 13 feet (NAVD88). Extend the outboard side of a portion of the SFC north levee at a 6:1 slope into Faber Tract Marsh to protect the toe of the existing levee from failure during high flow events;
4. Restore 1.74 acres of high marsh and transitional habitat along and within San Francisquito Creek, and the north and south levees as part of the total 15.14-acre high marsh/transition zone restoration effort. This would include 0.88 acres of newly created high marsh plain terrace in the Commission's future Bay and shoreline band jurisdictions and restoration of 0.86 acres of high marsh/transition zone along the edges of the creek; and
5. Restore 1.7 acres of high marsh and transition zone habitats in the Faber Tract Marsh within the Commission's Bay and shoreline band jurisdictions.

Within the 100-foot Shoreline Band:

1. Degrade approximately 600 linear feet (37,680 square feet) of an unmaintained section of the existing SFC north levee that runs between the Outer Faber Marsh and the terminus of San Francisquito Creek from 10-12 foot elevation (NAVD88) to approximately 8 feet (NAVD 88) to create a connection between the creek and the Outer Faber Marsh during high flow periods. Use approximately 4,000 cy of excavated soils for levee fill if it is suitable for this use;
2. Degrade portions of the existing paved SFC south levee (approximately 700 linear feet; 60,380 square feet) to an elevation of 7 feet (NAVD 88) and widen the existing channel, and setback portions of the existing SFC south levee into the golf course, outside the Commission's current jurisdiction. Setting the levee

back would expand the Commission's Bay and shoreline band jurisdictions beyond their current boundary (Exhibit C);

3. Place approximately 56,480 square feet of new fill for a portion of the newly aligned SFC south levee, within the Commission's existing and future shoreline band jurisdiction and realign 600 linear feet of the public access along the new SFC south levee top. The new SFC south levee along the golf course would be approximately 80 feet wide at the base and 14 feet tall;
4. Pave and maintain 600 linear feet of the newly realigned public access trail running along the crown of the realigned SFC south levee and therefore restoring the Bay Trail;
5. Temporarily close existing public access trails on the south side of the San Francisquito Creek near Friendship Bridge during construction operations;
6. Leave portions of the existing SFC south levee connection with Friendship Bridge to create an island (Friendship Island) in the center of the newly widened channel;
7. Stockpile topsoil removed during excavation and reuse stockpiled soil to repair areas disturbed during construction;
8. Install and maintain at least one interpretive sign related to Faber Tract Marsh at an approved location near Friendship Bridge or the newly constructed boardwalk;
9. Install and maintain at least seven BCDC public shoreline signs at approved locations to notify the public of where to access the shoreline;
10. Remove old PG&E gas utility lines and install a new 24-inch gas line upstream of Friendship Bridge via micro-tunneling;
11. Construct a steel sheet pile floodwall up to four feet above (18.40 NAVD 88) the existing SFC north levee top of bank and along approximately 500 feet of shoreline near the O'Connor Way Pump Station and Friendship Bridge (between about STA 28+00 to STA 33+00) to connect the outfall structure to the adjacent levees, a portion of which is within the Commission's jurisdiction;
12. Plant native high marsh vegetation on approximately 5,120 feet (approximately 6 acres) along the levees on the north, east, and south sides of Faber Tract Marsh to improve high tide refuge areas;
13. Utilize certain areas for the staging of construction equipment or materials (Exhibit D); and

14. Install, use and maintain a fence to exclude predators from entering the Faber Tract Marsh on the northern side of the San Francisquito Creek via the SFC north levee. The length, height and materials of the fence shall be reviewed and approved pursuant to Special Condition II-G-3, herein.

B. This authority is generally pursuant to and limited by your application dated August 26, 2013, including all accompanying and subsequently submitted correspondence and exhibits, subject to the modifications required by conditions herein.

C. Work authorized herein must commence prior to September 1, 2016, or this permit will lapse and become null and void. All work authorized herein must be diligently pursued to completion and must be completed within two years of commencement or by October 15, 2018 whichever is earlier, unless an extension of time is granted by amendment of the permit. Changes in the work authorized will likely require amendments to the authorization.

D. After completion of construction, the project will result in the placement of approximately 2,060 square feet (0.05 acres) of pile-supported fill for new public access over the Bay and approximately 22,000 square feet (9,990 cy) of solid fill. The project will open up a constriction point near the mouth of San Francisquito Creek, by removing approximately 37,680 square feet (3,380 cy) of existing fill. In the Commission's Bay and shoreline band jurisdictions, the project will place approximately 54,820 square feet (10,150 cubic yards) of solid fill (rock riprap) to reinforce parts of the inboard sides of SFC north and SFC south levees and protect footings on Friendship Bridge, and will place approximately 11,140 square feet (12,000 cy) of solid fill (soil) to reinforce a portion of the SFC north levee. The project will place small amounts of fill for habitat improvements, including 1,250 square feet for high tide refugia islands and approximately 1,710 square feet of rock for steelhead habitat features. In total, the project will result in a net increase of Bay fill of approximately 24,000 square feet (0.55 acres).

II. Special Conditions

The authorization made herein shall be subject to the following special conditions, in addition to the standard conditions in Part IV:

A. **Specific Plans and Plan Review.**

1. **Construction.** The final construction plans submitted pursuant to this condition shall generally conform to HDR's *San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project* (100% Design dated July 2015). Additionally, the permittee shall submit construction plans for the pile-supported boardwalk, bollards, public access signs, steelhead passage features or any other project elements not included in the *San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project* (100% Design dated July 2015) construction plans prior to conducting any work on these project elements. Final plans for the construction of the structures authorized herein

shall be prepared and submitted for Commission review as described below. No significant changes to the design of the project shall be made without review and written approval by the staff on behalf of the Commission.

2. **Plan Review**. No work whatsoever shall be commenced pursuant to this authorization until final precise site, demolition, construction staging, engineering, architectural, grading, landscaping, and best management practices plans and any other relevant criteria, specifications, and plan information for that portion of the work have been submitted to, reviewed, and approved in writing by or on behalf of the Commission. Construction staging plans shall ensure that there is minimal impact to tidal marsh areas and public access areas, subject to Special Condition II-C below. The specific drawings and information required for approval will be determined by the Commission staff. Preliminary drawings should be submitted and approved prior to submission of final drawings.

    a. **Site, Architectural, and Public Access Plans**. All plans shall include and clearly label: the shoreline (Mean High Water Line or the inland edge of marsh vegetation up to 5 feet above Mean Sea Level where tidal marsh is present); the line 100 feet inland of the shoreline; property lines; Highway 101; East Bayshore Road; the boundaries of all areas to be reserved for public access purpose; and details showing the location, types, dimensions, and materials to be used for all structures, irrigation, landscaping, drainage, bollards, signs, lighting, fences, paths, trash containers, utilities and any other improvements.

    b. **Engineering Plans**. Engineering plans shall include a complete set of construction drawings, specifications and design criteria. The design criteria shall be appropriate to the nature of the project and include the use of any structures, and soil and foundation conditions at the site. Final plans shall be signed by the professionals of record and be accompanied by:

        (1) Evidence that the design complies with all applicable codes; and

        (2) Evidence that a thorough and independent review of the design details, calculations, and construction drawings has been made.

    c. **Preliminary and Final Plan Submital**. Not later than 60 days prior to planned commencement, plans shall be accompanied by a letter requesting plan approval and including: identifying the type of plans submitted; the portion of the project involved; and indicating whether the plans are final or preliminary. Approval or disapproval shall be based upon:

        (1) Completeness and accuracy of the plans in showing the features required above, particularly the shoreline, property lines, and the line 100-feet inland of the shoreline, and any other criteria required by this authorization;

(2) Consistency of the plans with the terms and conditions of this authorization;

(3) The provision of the amount and quality of public access to and along the shoreline and through the project to the shoreline required by this authorization, but limited to ensuring: (a) the public's use and enjoyment of the access area; (b) public safety; (c) accessiblity for persons with disabilities; (d) sufficient durability and maintenance of materials and structures; and (e) that the access is clear and continuous and encourages public use;

(4) Whether the fill in the Bay does not exceed this authorization and will consist of approprate shoreline protection materials as determined by or on behalf of the Commission;

(5) Whether the appropriate provisions have been incorporated for safety in case of seismic event;

(6) Whether the placement of fill in the Bay will avoid or minimize impacts to the Bay and adjacent tidal marsh habitats;

(7) Whether the appropriate elevations will be achieved to minimize overtopping, flooding, and 100-year storm events in all public access areas; and

(8) Assuring that existing public access will not be impeded during construction to the maximum extent feasible and if temporaray closure is necessary, the permittee shall provide information, for staff review and approval, on the period of time for the temporary closure and a timeline for reopening the public access.

Plan review shall be completed by or on behalf of the Commission within 45 days after receipt of the plans to be reviewed.

3. **Conformity with Final Approved Plans**. All work, improvements, and uses shall conform to the final approved plans. Prior to any use of the facilities authorized herein, the appropriate design professional(s) of record shall certify in writing to the Commission that, through personal review, the work covered by the authorization has been performed in accordance with the approved design criteria and in substantial conformance with the approved plans. No noticeable changes shall be made thereafter to any final plans or to the exterior of any constructed structure, plantings, trails, signage, or shoreline protection work without first obtaining written approval of the change(s) by or on behalf of the Commission.

4. **Discrepancies between Approved Plans and Special Conditions**. In case of any discrepancy between final approved plans and Special Conditions of this authorization or legal instruments approved pursuant to this authorization, the Special Condition or the legal instrument shall prevail. The permittee is responsible for assuring that all plans accurately and fully reflect the Special Conditions herein and any legal instruments submitted pursuant to this authorization.

5. **Appeals of Plan Review Decisions**. Any plan approval, conditional plan approval or plan denial may be appealed by the permittee or any other interested party to the Design Review Board, the Engineering Review Board, or if necessary, subsequently to the Commission. Such appeals must be submitted to the Executive Director within 30 days of the plan review action and must include the specific reasons for appeal. The Design Review Board shall hold a public hearing and act on the appeal within 60 days of the receipt of the appeal. If subsequently appealed to the Commission, the Commission shall hold a public hearing and act on the appeal within 90 days of the receipt of the subsequent appeal.

B. **Construction Operations.**

1. **Testing Imported Soils.** Prior to importing soils for fill that would come into contact with waters of the Bay, all soils shall be tested for elevated levels of contaminants in accordance with the provisions of the Reional Water Quality Control Board's (Water Board) Conditional Water Quality Certification (WQC) issued on April 7, 2015. No soils found to have levels of contaminants above levels approved by the Water Board shall be imported to or utilized at the site.

2. **Best Management Practices**. The permittee shall also employ best management practices, such as use of: soil compaction; silt fences; dust control; cofferdams; water diversion pipes; minimizing impacts from human and vehicle traffic; revegetation and planting native species in impacted areas; and other practices to assure that material placed to enhance existing shoreline protection features and to create a new levee alignment will minimize impacts to the creek and tidal marsh habitat and inhabiting species. Special care should be given to ensure newly placed soils do not erode into the Bay.

3. **Marsh and Upland Plant Protection During Construction.** The work authorized by this permit shall be performed in a manner that will prevent, avoid, or minimize to the extent feasible, any significant adverse impact on any tidal marsh, other sensitive wetland resources, and existing native upland vegetation. If any unforeseen adverse impacts occur to any such areas as a result of the activities authorized herein, the permittee shall restore the area to its previous condition, including returning the disturbed area to its original elevation and soil composition and, if the area does not revegetate to its former condition within one year, the permittee shall seed all disturbed areas with appropriate vegetation consistent with plans approved by or on behalf of the Commission.

The permittee shall employ measures to minimize impacts to wetland areas, such as: (a) minimizing all traffic in marsh/mudflat areas; (b) ensure that any imported fill material, soil amendments, gravel, etc. placed within 12 inches of the ground surface shall be free of vegetation and plant material; (c) carefully remove, store, and replace wetland vegetation that has been removed or "peeled back" from construction areas as soon as possible following construction; and (d) reuse stockpiled soil, where appropriate, for re-establishment of disturbed project areas following construction.

4. **Worker Education Program.** All proposed project construction staff shall be trained by a qualified biologist in identifying special status species within the project area, their habitats, and avoidance and minimization measures prior to any work being performed. The training shall include information on the salt marsh harvest mouse, California Ridgway's rail, other sensitive species in the area and sensitive habitats in accordance with the United States Fish and Wildlife Service's (USFWS) Biological Opinion (BO) dated January 15, 2016.

5. **Construction Staging**. Staging areas for construction shall be generally located within the designated areas shown on the plan titled, "Staging Area Map," prepared by the San Francisquito Creek Joint Powers Authority in the "*Draft Biological and Essential Fish Habitat Assessment for the San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project San Francisco Bay to Highway 101*" (November 2012; ICF International) and be in accordance with methods specified in the National Marine Fisheries Service (NMFS) Biological Opinion (BO) dated December 30, 2015, USFWS BO dated January 15, 2016, and the California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement (SAA) dated February 9, 2016. All work areas shall be appropriately screened and fenced and any on-land construction equipment shall be operated in a manner to ensure that impacts to public access areas and adjacent baylands are minimized.

6. **Removal of Temporary Fill.** All temporary fill (including cofferdams, construction equipment, diversion pipes, rock placed as energy dissipaters, and other necessary construction materials) placed within the Commission's jurisdiction during construction shall be removed no more than 30 days following the end of construction activities during each year of construction or if more time is needed, the permittee shall notify Commission staff in writing and substantiate the time period required and shall obtain staff approval.

7. **Debris Removal**. All construction operations shall be performed to prevent construction materials from falling into the Bay. In the event that such material escapes or is placed in an area subject to tidal action of the Bay, the permittee shall immediately retrieve and remove such material at their expense.

8. **Certification of Contractor Review.** Prior to commencing any grading, demolition, or construction, the general contractor or contractors in charge of that portion of the work shall submit written certification that s/he has reviewed and understands the requirements of the permit and the final BCDC-approved plans, particularly as they pertain to any public access or open space required herein, or environmentally sensitive areas.

C**. San Francisquito Creek Widening.** The permittee shall remove a maximum of a 3-feet thick layer of sediment along the creek edges and shall utilize equipment that minimizes impacts to the surrounding creek and marsh habitats. All material shall be disposed or placed at an appropriate location outside the Commission's jurisdiction.

1. **Dewatering Plan.** Prior to in-stream construction, the permittee shall submit for Commission review a Dewatering Plan that includes a Surface Water Diversion Plan and Groundwater Management Plan, best management practices to ensure that groundwater flows are appropriately pumped, contained, and meet applicable water quality objectives before discharging the flow back into the creek downstream of the cofferdam.

2. **In-Stream Construction.** The permittee shall install cofferdams during all work in tidal areas the creek. Discharge waters coming from the cofferdam bypass pipes shall not exceed particulate limits defined in the USFWS BO dated January 15, 2016 and the Water Board's WQC dated April 7, 2015.

3. **Water Quality Best Management Practices.** In order to minimize impacts to natural resources, the permittee shall implement the mitigation measures, best management practices and other conditions required in its approved WQC dated April 7, 2015 and shall be in compliance with the Statewide National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Associated with Construction Activities, and an approved Storm Water Pollution Prevention Plan. Prior to beginning construction, the permittee shall obtain final written approval for the project construction from the Executive Officer of the Water Board and submit a copy of this approval to the Commission staff.

4. **Hazardous Material/Spill Prevention.** The permittee shall implement measures contained in an approved hazardous material/spill prevention plan. If hazardous materials are released into waters of the State during construction activities, the permittee shall implement clean up procedures identified in the approved plan and notify Commission staff within 48 hours.

D. **Marsh Restoration Work and Plans**

1. **Marsh Restoration Plan**. Within 90 days of issuance of this permit, the permittee shall work with the Commission staff and the Resource Agencies to finalize and submit the *Mitigation and Monitoring Plan* (MMP), including the marsh restoration and enhancement plan and program for review and approval by Commission staff. The MMP shall include, at a minimum, the following information:

   a. **Site Conditions and Modifications.** A topographic map of the site in one-foot contours and a topographic map showing the proposed modifications. All elevations shall be relative to National Geodetic Vertical Datum (NGVD88).

      (1) Within San Francisquito Creek, the plan shall include typical cross-sections showing proposed final elevation of marsh plain and creek channel, and any high spots. The plans shall show: (a) figures for the ratios of typical horizontal to vertical slopes for existing and proposed marsh surface, channels, and sloughs; (b) proposed plant species along the cross-sections according to their expected zone of growth; (c) the elevation of adjacent surrounding levees; and (d) the estimated tidal range related to Mean Higher High Water, Mean High Water, Mean Lower Low Water, Mean Sea Level, the maximum predicted tide, and the 100-year tide.

      (2) Within and adjacent to Faber Tract Marsh, the plan shall include typical cross-sections showing proposed final elevation of marsh plain, transitional habitat along the levee toe, degraded levee (outer Faber Tract) and marsh mounds. The plans shall show: (a) figures for the ratios of typical horizontal to vertical slopes for existing and proposed transitional habitat adjacent to the levees, the degraded levee; (b) location of the marsh mounds; proposed plant species along the cross-sections according to their expected zone of growth; (c) the elevation of adjacent surrounding levees; and (d) the estimated tidal range related to Mean Higher High Water, Mean High Water, Mean Lower Low Water, Mean Sea Level, the maximum predicted tide, and the 100-year tide.

   b. **Plantings and Revegetation Plan.** The plan shall maximize the use of native plants consistent with the adjacent baylands and high profile marsh vegetation; and shall utilize appropriate native mix erosion-control seed mixes where appropriate, such as levee slopes.

   c. **Identification of a Suitable Reference Site**. The plan shall include appropriate, nearby reference sites for evaluating the progress of the restoration and enhancement site that shall be used as a comparison site in the monitoring program.

d. **Soil and Water Information**. The restoration program shall include a report identifying the type of soils found at the site and the soil type of any fill to be imported to the site, including all necessary sediment testing required under the Water Board's WQC. Information shall be provided on the quantitative soil measurements of salinity, pH, organic content, and bulk density. All imported soils must be within 10% of the range of values found at the "reference marsh" for soil qualities such as grain size, organic content, salinity, and pH. Information shall also be provided on the water, including water analysis of salinity, pH, biochemical oxygen demand (BOD), dissolved oxygen (DO), and, if appropriate, heavy metals.

e. **Schedule.** The plan shall include a construction, planting and temporary fill removal schedule consistent with water quality and wildlife protections described herein.

f. **Invasive Species Control**. The plan shall include appropriate measures to prevent the spread of invasive plants. Undesirable exotic plant species such as pepperweed (*Lepidium latifolium*), *Spartina alterniflora*, broom, or star thistle shall be reasonably controlled (coverage of less than 5 percent of the expected zone of growth) during the first five years or until invasive plants are eliminated in 90% of the site.

2. **Monitoring**. Beginning February 1, 2018, and each February in years following, the permittee shall report to the Commission on the success of the project in restoring tidal marsh and transition zone habitats at the locations identified in the approved MMP. The monitoring period shall last for a minimum of five years, and continuing until those portions of the restoration site subject to tidal action meet the designated success criteria as specified in the MMP as compared with nearby reference marshes, or for up to ten years, whichever occurs first. Monitoring shall generally occur between September 1st and December 1st as specificied in the USFWS BO.

   The permittee shall submit annual reports and a final comprehensive report that includes the percentage of the site revegetated, plant survival rates, invasive species coverage, approximate percentage representation of different plant species, and a qualitative assessment of plant growth rates for the all tidal and creek restoration areas, including adjacent transition zone habitats.

   The permittee shall monitor the success of high tide refuge islands for a minimum of five years and generally in accordance with an MMP approved by or on behalf of the Commission.

   Should adverse conditions be identified during the five years of monitoring following construction, the permittee shall take corrective action, in a reasonable period of time, as specified by or on behalf of the Commission. Once

corrective actions have occurred, the permittee shall commence additional monitoring as specified by the Commission to identify additional issues or find the project has met its success criteria.

3. **Restoration Plan Submittal and Review.** At least 60 days prior to the commencement of any work at any location pursuant to this authorization, the permittee shall submit the final *Mitigation and Monitoring Plan* (MMP), which includes the marsh restoration and enhancement plan and program, to be approved by or on behalf of the Commission for the restoration and enhancement of areas within and along the San Francisquito Creek and adjacent to Faber Tract Marsh. The tidal marsh restoration and berm enhancement program shall consist of not less than 9.44 acres of restored habitat areas.

4. **Marsh Restoration Work.** Prior to the completion of all construction activities authorized herein, the permittee shall undertake all necessary grading, installation of temporary irrigation, planting of marsh plants and monitoring, generally in accordance with the final *Mitigation and Monitoring Plan* as approved by or on behalf of the Commission as described above.

E. **Minimize Impacts to Wildlife.** In order to minimize impacts to listed and special status species, the permittee shall, to the maximum extent feasible, take all precautions to avoid adverse impacts to the California Ridgeway's rail, California black rail, salt marsh harvest mouse, green sturgeon, longfin smelt, steelhead, and California red-legged frog and other species of concern that may occur in the project area. The permittee shall employ the conservation measures outlined in its permit application and subsequent submittals, and adhere to the avoidance and minimization measures identified in the CDFW SAA dated February 9, 2016, the conservation measures in the USFWS BO dated January 15, 2016, and the reasonable and prudent measures identified in the NMFS BO and Incidental Take Statement. All construction activities within San Francisquito Creek shall occur between June 15th through October 15th of any year and work outside the creek shall occur between May 1st and October 15th of any year, unless an extension of time is requested by the permittee in writing and is approved on behalf of the Commission.

1. **Biological Monitors.** The permittee shall employ a qualified biologist(s) to conduct onsite monitoring during construction activities for potential impacts to California red-legged frog, San Francisco garter snake, California Ridgway's rail, California black rail and salt marsh harvest mouse, special status plant species and their habitat.

2. The permittee shall be responsible for implementing the following minimization measures specific to species protection for work in and adjacent to Faber Tract Marsh:

    a. **California Ridgway's Rail:**

        (1) For any work performed during the Ridgway's rail breeding season (February 1st through August 31st), weekly call counts shall be conducted each year during the rail courting period;

        (2) Surveys shall be coordinated with the USFWS, but will generally follow the protocols outlined in the USFWS BO, dated January 15, 2016;

        (3) A 700-foot-wide buffer shall be maintained at active Ridgway's rail nest sites and be monitored by a qualified biologist; and

        (4) All activity near the buffer area shall be evaluated by the field biologist in an effort to eliminate any possible disturbance of adult or juvenile birds.

    b. **Salt Marsh Harvest Mouse:**

        (1) Installation of mouse exclusion fencing around the defined work area following any vegetation removal; and

        (2) Any work within 300 feet of tidal or pickleweed habitats shall have a biologist inspect the work area and adjacent habitats to determine if salt marsh harvest mice are present and the biologist shall remain on site to monitor during operations.

3. **Endangered Species Siting.** No work shall be performed if the qualified biologist determines that any California Ridgway's rail, California black rail, or salt marsh harvest mouse is within the work area. Any individual of these listed species that is found within the work area shall be allowed to leave the work area of its own volition.

4. **Work Limitation**. No work shall occur within 2 hours of extreme high tides (6.5 feet NAVD88 or above) within the habitats of the California Ridgway's rail, California black rail, and salt marsh harvest mouse habitat.

5. **Limits for Pesticide and Herbicide Use.** The permittee shall not utilize rodenticides or fumigants within 328 feet of suitable habitat for the salt marsh harvest mouse or California Ridgway's rail. All herbicides shall be in compliance with the State-certified applicators and under the direction of a licensed Pest Control Advisor. Only herbicides and surfactants approved for aquatic use shall be applied to the channel/creek banks and within 20 feet of any water present on site. Aquatic herbicide use shall be limited to use from between **July 1st through October 15th** in accordance with the USFWS BO dated January 15, 2016 and the CDFW SAA dated February 9, 2016.

6. **Protection of Nesting Shorebirds.** Migratory bird nesting surveys shall be performed prior to any proposed project-related activities that may impact nesting migratory species (nesting season between January 15th and September 1st) in accordance with the USFWS BO and the CDFW SAA.

7. **Predator Control.** The permittee shall develop and implement a predator control program for controlling predators around and within the marsh and shall submit a copy of the plan to Commission staff for approval.

F. **Mitigation**. To mitigate for impacts to species and habitat, the permittee shall construct the following habitat features. These features shall be constructed as authorized in Section I-A herein and as depicted on final plans and specifications approved pursuant to Special Condition II-A, herein.

1. **High Tide Refuge Islands.** Within two years of project commencement, the permittee shall construct at least five high tide refuge islands.

2. **Steelhead Passage Features.** As part of the widening and restoration of San Francisquito Creek, the permittee shall construct steelhead high flow refugia features. These features shall be constructed concurrently with the creek restoration and not later than October 15, 2017. The steelhead high flow refugia shall be constructed with either quarry rock, tree rootwads or other inert material approved by or on behalf of the Commission.

3. **Tidal Marsh Restoration.** To mitigate for both the temporary impacts and permanent loss of marsh, the permittee shall restore a minimum of 3.44 acres of high marsh and high marsh transition habitats within the Commission's jurisdiction. The restoration work shall occur concurrently with the project to the maximum extent feasible and must be commenced by August 1, 2017 or a later date approved by Commission staff. By, August 31, 2016, the permittee shall submit final plans for the preparation, planting, establishment care, and monitoring of these of tidal marsh restoration areas for review and approval by Commission staff.

4. **Faber Marsh Berm Enhancements**. By December 30, 2018, the permittee shall construct all berm enhancements in and around Faber Marsh, unless a later completion date is approved by Commission staff by August 31, 2016, the permittee shall submit final plans for the preparation, planting, establishment, care, and monitoring of Faber Marsh Berm Enhancements as described in the USFWS BO dated January 15, 2016.

G. **Public Access**

1. **Total Area.** The public access provided by this project shall total approximately 209,120 square feet (4.8 acres), of which approximately 47,500 square feet will be new public access added as part of this project to the currently existing public access, both inside and outside the Commission's jurisdiction, and shall be made available exclusively to the public for unrestricted public access for walking, bicycling, viewing, and related purposes. All public access improvements including, but not limited to, trail alignments (including configuration and dimensions), benches, overlook improvements, signage, railings, trash containers, fencing and interpretive exhibits shall be subject to final plan review approval pursuant to Special Condition II-A of this permit. On limited and rare occasions, if the permittee wishes to use the required public access areas for uses other than the uses described above, such as extended closures for levee maintenance or repair, the permittee must obtain written approval by or on behalf of the Commission at least 30 days prior to such use of the public access area.

2. **Public Access Improvements.** No later than six months after substantially completing levee realignments and improvements authorized herein, or by October 15, 2018, whichever is sooner, the permittee shall install the following public access improvements, as generally shown on Exhibit D, and make the improvements available exclusively to the public for unrestricted public access:

   a. **Improvements within the Commission's jurisdiction shall include**:

      (1) Remove approximately 700 linear feet of existing paved Bay Trail running along the existing SFC south levee and realign approximately 600 linear feet of the paved public access trail along the new realigned SFC south levee. The new trail shall be a minimum of 10 feet wide and may be up to 16 feet wide;

      (2) Construct an approximately 202-linear-foot, 10-foot-wide, wooden, pile-supported boardwalk across the newly widened San Francisquito Creek (from the realigned SFC south levee to Friendship Island), connecting sections of the Bay Trail on the north and south sides of the project area;

      (3) Install and maintain two approximately, 250-square-foot overlook areas (one on each end of the boardwalk connecting Friendship Island and the SFC south levee) with overlook improvements such as, bicycle pull-out spaces and benches, and install and maintain interpretive signage related to Faber Tract Marsh near the overlook areas;

      (4) Place compacted aggregate (4-inch minimum depth), such as decomposed granite, on portions of the trail north of Friendship Bridge and near the O'Connor Pump Station.

b. **Improvements Within the Total Public Access Area**. Prior to the completion of the project authorized herein, the permittee shall install the following improvements, as generally shown on the attached Exhibit D:

(1) Approximately 2,500 linear feet of asphalt paved trail running from the new boardwalk connection on the SFC south levee top to the Geng Road access point. The trail shall be a minimum of 10 feet wide and may be up to 16 feet wide in some locations;

(2) Approximately 1,590 linear feet of compacted aggregate (4-inch minimum depth) trail running along the SFC south levee from about the Geng Road access point to the end of the project constructed trail, which connects to an existing 220-foot section of pavement near East Bayshore Road (on the SFC south levee near the East Bayshore Road access point). The trail shall be a minimum of 12 feet wide and may be up to 16 feet wide in some locations;

(3) Approximately 3,070 linear feet of compacted aggregate (4-inch minimum depth) trail, such as decomposed granite, along the top of the SFC north levee extending from the O'Connor Pump Station to East Bayshore Road. A small portion (1,450 linear feet) of the SFC north levee trail near Daphne Way will remain as the existing earthen trail. The trails must be a minimum of 12 feet wide and may be up to 16 feet wide in some locations;

(4) Install and maintain no fewer than seven BCDC public shoreline signs placed at approved locations. There shall be one sign located near each of the trail access points generally shown on Exhibit D, and one sign placed near the intersection of Geng Road and Embarcadero Road in the City of Palo Alto to direct public access users to the trail;

(5) Establish new formal access points for the trail by providing public access improvements at Verbena Drive, Daphne Way, and East Bayshore Road (on both the SFC north and SFC south levees) that shall include signage, and any other public access improvements needed to clearly identify the access points for the public and to prevent unauthorized use of the trail; and

(6) Install bollards and other public access improvement near the O'Connor Pump Station and Geng Road access points to prevent unauthorized vehicles from entering the public access area.

Such improvements shall be consistent with the plans approved pursuant to Condition II - A of this authorization and generally conform to the areas shown on Exhibit D of this authorization.

3. **Fencing Impacts on Public Access.** The permittee shall submit plans for all fencing proposed, including predator exclusion fencing, as part of the project, which shall undergo plan review per Special Condition II – A above. The permittee shall discuss design considerations (dimensions, height, fencing type, etc.) with staff during planning and gain staff approval through plan review prior to constructing any permanent fencing on the project site. The permittee shall utilize fencing materials that maximize views to the Bay and surroundings from the public access corridors to the maximum extent feasible.

4. **Temporary Closure of Public Access**. The permittee shall place appropriate signage on either side of construction areas, as needed, to alert the public of the work, advising caution and potential delays, indicating when public access areas may be closed, cleared, and re-opened, and indicating the location of alternative routes around the construction project to access the Bay Trail. The permittee shall provide alternative routes around construction zones when possible and ensure that appropriate signage and personnel are on-site to re-route the public around any portion of the public access areas that may be closed during construction activities.

5. **Reasonable Rules and Restrictions.** The permittee may impose reasonable rules and restrictions for the use of the public access areas to correct particular problems that may arise. Such limitations, rules, and restrictions shall have first been approved by or on behalf of the Commission upon a finding that the proposed rules will not significantly affect the public nature of the area, will not unduly interfere with reasonable public use of the public access areas, and will tend to correct a specific problem that the permittee have both identified and substantiated. Rules may include restricting hours of use and delineating appropriate behavior.

6. **Maintenance of Public Access Improvements**. The areas and improvements within the 209,120 square feet (4.8 acres) public access area described above shall be permanently maintained by and at the expense of the permittee or their assignees. Such maintenance shall include, but is not limited to: repairs to all path surfaces; replacement of any plant materials that die or become unkempt; repairs or replacement as needed of any public access amenities such as signs, benches, bollards, etc.; periodic cleanup of litter and other materials deposited within the access areas; removal of any encroachments into the public access areas; assurance that the public access signs remain in place and visible; and repairs to any public access areas or improvements that are damaged by future subsidence or uneven settlement, or flooding, or inundation caused by sea level rise, including raising land elevations or redesigning public access features to protect and ensure the usability of the public access areas and improvements at all times. Within 30 days after notification by staff, or a longer period of time requested by the permittee and approved by Commission staff, the permittee

shall correct any maintenance deficiency noted in a staff inspection of the site. The permittee shall obtain approval by or on behalf of the Commission of any maintenance that involves more than in-kind repair and replacement.

7. **Assignment.** The permittee shall transfer maintenance responsibility to a public agency or another party acceptable to the Commission at such time as the property transfers to a new party in interest but only provided that the transferee agrees in writing, acceptable to counsel for the Commission, to be bound by all terms and conditions of this permit.

H**. Riprap and Shoreline Protection**. Riprap placed within the project site shall be either quarry rock or specially cast or carefully selected concrete pieces free of reinforcing steel and other extraneous material and conforming to quality requirements for specific gravity, absorption, and durability specified by the California Department of Transportation or the U. S. Army Corps of Engineers. The material shall be generally spheroid-shaped. Use of dirt, small concrete rubble, concrete pieces with exposed rebar, large and odd shaped pieces of concrete, and asphalt concrete as riprap is prohibited.

1. **Placement.** Riprap material shall be placed so that a permanent shoreline with a minimum amount of fill is established by means of an engineered slope not steeper than two (horizontal) to one (vertical) unless slope is keyed at the toe. The slope shall be created by the placement of a filter layer protected by riprap material of sufficient size to withstand wind and wave generated forces at the site. Further, all rock-slope projections shall be in a manner that minimizes spaces between the rocks that may provide predator denning areas in accordance with the USFWS BO dated January 15, 2016.

2. **Design.** Professionals knowledgeable of the Commission's concerns, such as civil engineers experienced in coastal processes, should participate in the design of the shoreline protection improvement authorized herein.

3. **Maintenance.** The shoreline protection improvements authorized herein shall be regularly maintained by, and at the expense of the permittee(s), any assignee, or other successor in interest to the project. Maintenance shall include, but not be limited to, collecting any riprap materials that become dislodged and repositioning them in appropriate locations within the riprap covered areas, replacing in-kind riprap material that is lost, repairing the required filter fabric as needed, and removing debris that collects on top of the riprap. Within 30 days after notification by the staff of the Commission, the permittee(s) or any successor or assignee shall correct any maintenance deficiency noted by the staff.

I. **Levee and Floodwall Maintenance Restrictions.** The levees and floodwall improvements authorized herein shall be regularly maintained by, and at the expense of the permittee(s), any assignee, or other successor in interest to the project. Maintenance shall include, but not be limited to, replacing in-kind material that is lost, repairing degraded portions of the levees and/or floodwalls as needed, and removing debris that collects on the levees and near floodwalls. Within 30 days after notification Commission staff, the permittee(s) or any successor or assignee shall correct any maintenance deficiency noted by the staff. Further maintenance limitations for all levees authorized herein include:

1. **Rodent control.** No rodenticides shall be used in areas within or adjacent to known and potential habitat for salt marsh harvest mouse and Ridgway's rail. In areas near suitable habitats for the salt marsh harvest mouse and Ridgway's rail, the permittee shall use only live traps to control rodents in compliance with the USFWS BO and CDFW SAA. In the event that a listed species becomes trapped, the appropriate Resource Agencies should be contacted for instructions regarding release or care for the animal.

2. **Levee mowing for Operations and Maintenance.** The grassland habitat along the San Francisquito Creek levee slopes up shall be mowed not more than three times per year to maintain acceptable roughness and prevent fire hazards. However, prior to mowing, the permittee shall conduct cutting of vegetation in accordance with USFWS BO dated January 15, 2016 and the CDFW SAA dated February 9, 2016.

3. **Transfer of Maintenance Responsibility**. Operation and maintenance, of the levees only, may be transferred to the Santa Clara Valley Water District Stream Maintenance Program (SMP) upon approval of the SMP by or on behalf of the Commission.

J. **Creosote Treated Wood**. No pilings or other wood structures that have been pressure treated with creosote shall be used in any area subject to tidal action in the Bay or any certain waterway, in any salt pond, or in any managed wetland within the Commission's jurisdiction as part of the project authorized herein.

III. Findings and Declarations

This authorization is given on the basis of the Commission's findings and declarations that the work authorized herein is consistent with the McAteer-Petris Act, the *San Francisco Bay Plan* (Bay Plan), the California Environmental Quality Act (CEQA), and the Commission's amended coastal zone management program for San Francisco Bay for the following reasons:

A. **Bay Fill.** The Commission may allow fill only when it meets the requirements identified in the McAteer-Petris Act Section 66605, which states, in part, that: "[(a)] the public benefits from fill in the Bay should be authorized when public benefits from fill clearly exceed public detriment from the loss of water areas, fill should be

limited to water-oriented uses or minor fill for improving shoreline appearance and public access; (b) there is no alternative upland location; (c) the fill is the minimum amount necessary; (d) the fill is designed to minimize harmful effects to the Bay Area, including reducing impacts to water circulation, water quality, marshes and wildlife, and other conditions of the environment; (e) that the fill should be constructed in accordance with sound safety standards, which offer protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters; (f) authorized fill should establish a permanent shoreline; and (g) the fill should be authorized only when the applicant has valid title."

The project would result in the net placement of approximately 24,000 square feet of new permanent fill in the Bay for a variety of uses, including those related to stabilization and protection of existing levees along the creek, construction of a floodwall (part of which is in the Commission's jurisdiction), construction of a new pile-supported boardwalk, replacement of utility lines, creation of high tide refugia islands in the Outer Faber Marsh, placement of in-stream fish high flow refugia structures (steelhead passage features), and protection of bridge footings/abutments located within the streambed. Solid fill placed on the outboard side of the SFC north levee in Outer Faber Tract would be primarily for the creation of high tide refugia (Exhibit D). Fill for public access within the Bay would include approximately 2,062 square feet of the fill for the new wooden, pile-supported boardwalk over newly created open-water area and tidal marsh terrace within the Commission's future Bay jurisdiction. The Commission's Bay and shoreline band jurisdictions will be expanded as a result of the project.

Placement of temporary fill includes cofferdams, water diversion pipes, and energy dissipaters to dewater and divert stream flows from upstream during the in-channel construction period. Approximately 12,810 square feet of temporary fill, necessary for the construction of a temporary cofferdam and water diversion structure, would be placed within the creek. The cofferdam would consist of sheet piles driven approximately 20 feet deep into the channel. A 36-inch HDPE diversion pipe would run along the surface of the Faber Tract Marsh (1,850 feet long, 1,940 cy of fill) temporarily covering about 5,550 square feet of the marsh. At the end of the diversion pipe, a rock energy dissipater would be constructed within the channel, resulting in approximately 540 cy of temporary solid fill (7,260 square feet). The pipes and the rock energy dissipater would be removed at the end of each construction, June through October, and stored outside BCDC's jurisdiction.

1. **Public Benefit**. The existing shoreline and creek consists of an undersized flood protection channel; flood protection levees in need of repair; and an existing marsh that lacks connection to the creek and has limited existing high tide refugia for certain species. In addition, levees on the north side of the creek are lower than the other side creating a greater flood risk for East Palo Alto, and an inadequate level of flood protection exists for the current and future conditions as evidenced by recent flood events. Currently, the lower portion of the creek is

constrained, and partially filled with sediment, reducing flood capacity. Degrading the levee along the Outer Faber Marsh will reduce the constriction point near the Bay and reduce flood elevations further upstream during high flows.

The Faber Tract Marsh is bordered on four sides by levees or earthen berms that restrict fluvial and tidal exchange of sediment into the marsh. The marsh has limited existing transition zones and high tide refugia, so the highest tides fully inundate the marsh. During high tides, wildlife, including two federally- and state-listed species, must move to the edges of the marsh where predation rates can be high. The fill placed within the marsh to create high tide refugia islands and along the edges to provide additional transitional space at the toe of the levee will provide much needed opportunities for species to reach higher elevations during high tides.

The Commission finds that the public benefits associated with the fill placed within the Commission's jurisdiction to enhance existing levees and widen the creek to protect inland areas from flooding exceeds the public detriment from its placement. Additionally, the Commission finds that fill placed for high tide and transition zone habitats will provide a significant public benefit by supporting native Bay species, especially those with critical population issues associated with habitat loss.

2. **Water Oriented Use.** Within the Commission's jurisdiction, approximately 30,000 square feet of fill is proposed within the Commission's Bay and 100-foot shoreline band jurisdictions for the purpose of flood protection. While not explicitly described as a "water oriented use" by the McAteer-Petris Act, shoreline protection systems, have been authorized in numerous locations around the Bay by the Commission, and have been found to be a water-oriented use. The Bay Plan has an entire section with findings and policies on Shoreline Projection in the Bay. Finding (b) of the Commission's Shoreline Protection policies recognizes that, "[m]ost structural shoreline protection projects involve some fill…." The primary purpose of much of the proposed project elements that include fill, is to provide upstream flood protection for residents within the City of East Palo Alto and to provide protection to property owners in the City of Palo Alto by reinforcing, realigning or enhancing existing levees.

   The Commission finds that the fill associated with the project (riprap and earthen fill) protects residents against flooding and serves a water-oriented use similar to other shoreline protection systems approved by the Commission.

3. **Alternative Upland Location.** The flood control project is designed to protect residents in the floodplain from flooding. There is no alternative upland location for the fill proposed in the channel because shoreline protection features are necessary for the basic project purpose and need. In addition to flood protection, the project has other goals, including habitat enhancement,

restoration, and creating upland refugia. Faber Tract Marsh would be subject to more frequent flooding events after the lowering of the levee between the San Francisquito Creek and the Outer Faber Marsh, and therefore, the proposed fill is necessary to provide higher elevation refugia for Ridgway's Rail and salt marsh harvest mice that live there.

The Commission finds that there is no alternative upland location for the riprap and earthen fill needed to protect levees from erosion and protect residents from flooding. Additionally, the Commission finds that there is no alternative upland location for the earthen fill needed to provide high tide refugia, a necessary habitat feature for marsh dependent, special status species and to adapt to sea level rise.

4. **Minimum Amount Necessary**. The project will involve a net placement of approximately 24,000 square feet of new fill in the Commission's current and future Bay jurisdiction (Table 1). The permittee stated that this is the minimum amount of fill necessary to construct project elements and achieve the flood protection and habitat restoration goals of the project.

   Of the new Bay fill, approximately 18,240 square feet of solid fill, consisting of riprap and earthen fill, is necessary for protecting existing levees and reinforcing low sections of the outboard side of the SFC north levee; and protecting areas of Friendship Island from erosion. Due to the velocity of the water flowing through the channel during high flows, rock and concrete are needed to maintain the levees in the channel as softer sediments would likely be washed out or eroded.

   To connect the newly widened creek and the public access trails, approximately 2,060 square feet of the new pile-supported fill is needed to provide continuity along the trail. If this boardwalk is not provided, a gap would exist between the trail on the north and south sides of the creek.

   As required by NMFS and CDFW, the project will also involve minor amounts of solid fill consisting of mainly rock (approximately 1,710 square feet) within the creek to create one of six high velocity refuge areas for migrating steelhead (five features are outside the Commission's jurisdiction). This refuge area would allow for individual steelhead and other fish species living within and traveling through the channel to have an area of respite. If the fish passage features were not created, steelhead migrating in the channel would not have the necessary quiet waters to rest and feed during migration, which could lead to the species abandoning this creek over time. Because these features are specifically designed for this purpose, the permittee has stated it is the minimum amount of fill necessary.

   Additionally, approximately 1,250 square feet (110 cy) of the new fill will be for the creation of five high tide refugia islands in the Outer Faber Marsh. The permittee has stated that the fill is the minimum amount necessary to achieve the desired habitat features with minimal reduction in existing marsh habitat

and to mitigate for temporary or permanent loss of high tide refuge areas resulting from the project. These features have been incorporated into the project as mitigation for habitat loss and species impacts and are required by the Resource Agencies.

The permittee will also be remove a minor amount of existing Bay fill (approximately 2,810 square feet) along the Outer Faber Marsh levee (Exhibit D) to restore the area to marsh plain elevation.

Because most of the fill placed as part of this project will be for shoreline protection, and minor amounts of fill is for public access along the shoreline and the creation of important habitat features for special status species, the Commission finds that this is the minimum amount of fill necessary to construct the project.

5. **Permanent Shoreline.** The fill placed along the levees as part of this project and within the Commission's Bay and shoreline band jurisdiction would bolster existing levees, increase channel flood capacity and protect the adjacent communities along the San Francisquito Creek from flood damage by protecting residents and the surrounding land from flooding that would occur during a 100-year storm event occurring at a time when the Bay experiences 26 inches of sea level rise in the future. In addition, the project would result in a net increase in the Commission's Bay jurisdiction after the widening of the San Francisquito Creek is completed. The proposed design is anticipated to be a long-term solution that would establish a permanent shoreline until at least 2067. Beyond that date, project modifications and adaptations may be needed to further protect residents and adjacent properties from future conditions.
6. **Valid Title.** All work for the project, within BCDC's jurisdiction, would be conducted on property owned by the City of Palo Alto. The City of Palo Alto granted an easement for work on the proposed project to the Santa Clara Valley Water District, which is a member of the JPA.

For these reasons, the Commission finds that the fill placed during this project is the minimum amount necessary, has been designed and will be constructed to sounds safety standards, will establish a permanent shoreline and will minimize harmful impacts to the Bay Area.

B. **Natural Resources.** Within the Commission's jurisdiction, the project would impact approximately 2.19 acres of tidal marsh habitat and proposes to restore and enhance a total of 9.44 acres of tidal marsh, transition zone, and high tide refuge habitats. The project would: (1) widen the tidal creek by realigning an adjacent levee; (2) excavate upland habitat that has developed within the creek channel and restore tidal marsh along the edges of the channel; (3) fill small amounts of tidal marsh in the Faber Tract Marsh to create high tide refugia islands and enhance adjacent transitional areas to improve refuge habitat for the salt marsh harvest

mouse and the Ridgway's Rail; (4) install fish velocity refuge features within creek using solid fill, such as large rock; and (5) place fill on the outboard side of the SFC north levee to reduce erosion of the levee toe during overtopping.

1. **Fish, Wildlife and Tidal Marsh Habitat.** The Bay Plan policies on Fish, Other Aquatic Organisms, and Wildlife state, in part, that "[t]o assure the benefits to fish, other aquatic organisms and wildlife for future generations... the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored, and increased." Similarly, the Bay Plan policies on Tidal Marshes and Tidal flats state, in part, "[t]idal marshes and tidal flats should be conserved to the fullest possible extent. Filling, diking, and dredging projects that would substantially harm tidal marshes or tidal flats should be allowed only for purposes that provide substantial public benefits and only if there is no feasible alternative." These policies further state that any proposed projects in these areas, "[s]hould be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats, and designed to minimize, and if feasible, avoid any harmful effects," and that "[p]rojects should be sited and designed to avoid, or if avoidance is infeasible, minimize adverse impacts on any transition zone present…." The policies encourage that "shoreline projects should be designed to provide a transition zone between tidal and upland habitats."

   Fish, Other Aquatic Organisms and Wildlife Policy 4 states that "[t]he Commission should consult with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service whenever a proposed project may adversely affect an endangered or threatened plant, fish, other aquatic organisms or wildlife species...and give appropriate consideration of (their) recommendations in order to avoid possible adverse impacts of a proposed project on fish, other aquatic organisms and wildlife habitat."

   Tidal Marsh Policy 6 states, in part, that, "[a]ny ecosystem restoration project should include clear and specific long-term and short-term biological and physical goals, and success criteria, and a monitoring program to assess the sustainability of the project. Design and evaluation of the project should include analysis of: (a) how the system's adaptive capacity can be enhanced so that it is resilient to sea level rise and climate change; (b) the impact of the project on the Bay's sediment budget; ...(e) potential invasive species introduction, spread, and their control; (f) rates of colonization by vegetation; (g) the expected use of the site by fish, wildlife and other aquatic organisms and wildlife; ... and (i) site characterization. If success criteria are not met, appropriate adaptive measures should be taken."

   Finally, Fish, Other Aquatic Organisms and Wildlife Policy 5 states that "[t]he Commission may permit a minor amount of fill or dredging in wildlife refuges, shown on the Plan Maps, necessary to enhance fish, other aquatic organisms

and wildlife habitat or to provide public facilities for wildlife observation, interpretation and education." Tidal Marsh Policy 8 further states that "[b]ased upon scientific ecological analysis and consultation with the relevant federal and state resource agencies, a minor amount of fill may be authorized to enhance or restore fish, other aquatic organisms or wildlife habitat if the Commission finds that no other method of enhancement or restoration except filling is feasible…."

To assess the impacts to habitats and species, the project underwent a California Environmental Quality Act (CEQA) review, as well as review by the State and Federal Resource Agencies, resulting in the issuance of two Biological Opinions and a Streambed Alteration Agreement from CDFW.

a. **Creek Alteration**. As proposed, the project would alter the existing tidal creek habitat within the Commission's Bay and shoreline band jurisdictions by widening areas to increase flood flows. In the process, both tidal and riparian habitats would be affected through excavation of upland areas within the lower reach of the creek. The realignment of the channel would impact approximately 1.15 acres of tidal marsh habitat within BCDC's jurisdiction. The proposed excavation activities would remove approximately 1,470 cy of sediment within the channel and would temporarily impact 16,120 square feet of ruderal and high marsh habitat within the channel, but would restore elevations in the creek to approximately Mean Higher High Water (6.0-8.0 ft NAVD88, graded at approximately 30:1) and allow for passive revegetation of high marsh habitat along the channel edges. Additionally, transitional habitat would be constructed along the levee slopes within the Commission's jurisdiction. Post construction, the project would provide a total of 15.14 acres of tidal marsh and transition zone habitats over the full length of the lower reach of the creek, 1.74 acres of which are within the Commission's existing and future jurisdiction.

   Once the creek is widened, it will include a low flow channel and a wider high flow channel, at appropriate elevations for normal and flood flows. The project will also create a new high tide marsh terrace area, between Friendship Island and the SFC south levee, within the widened creek, which would be planted with high marsh plants including alkali weed, saltgrass, alkali heath, marsh jaumea, and perennial pickleweed. The in-channel tidal marsh and transition zone habitats will improve habitat connectivity between the creek and surrounding baylands, enhancing ecosystem functionality.

   Caltrans work upstream of the project site will widen the bridge over San Francisquito Creek, allowing additional flows into the project reach. This work could increase velocities within the channel and have the potential to impact steelhead. As discussed in more detail below, six "steelhead passage features" would be installed along the lower reach of San Francisquito Creek

and consist mainly of rock and root wad materials. Of the six steelhead passage features, one high velocity refuge area would be located within the Commission's jurisdiction. This would provide desirable habitat features within the channel, which is expected to have long-term benefits for fish and wildlife species within the project area.

While the San Francisquito Creek could accommodate greater flood flows, the widened portion of the creek would not be expected to significantly impact the tidal hydrology and sediment movement within the Bay and would reduce upstream flood elevations.

Between June 15th through October 15th, in 2016 and 2017, the project would have temporary impacts to the channel and tidal hydrology during the in-stream construction window. During this period, temporary fill for construction, including placement of two cofferdams, one at the Bayward end of the channel and one upstream of the Commission's jurisdiction, would be necessary to dewater the creek and perform work. The construction would also require temporary use of a 36-inch HDPE water diversion pipe that would be routed along the outboard bank of the Faber Tract marsh levee to an energy dissipater (consisting mostly of rock) just downstream from the cofferdam. The energy dissipater would help prevent the erosion of channel banks due to outflow from the diversion pipe.

The project will have both temporary and permanent impacts on in-stream tidal marsh and transition zone habitats. Special Conditions II-B-1 through II-B-8 and Special Condition II-E have been included herein to ensure that the project utilizes best management practices during construction to minimize impacts to these habitat areas. Some minor amounts of temporary fill are required during construction, but Special Condition II-B-6 ensures that the permittee will remove all temporary fill and Special Condition II-B-3 ensures these impacted areas will be restored through either passive or active revegetation. Minor amounts of permanent fill are necessary to create habitat features for steelhead. The project will also create new tidal marsh within the creek, restore tidal marsh along the edges of the creek, and restore areas temporarily impacted by the project that are within the Commission's current and future jurisdictions. Special Condition II-F has been included herein to ensure that these habitat features are built in a reasonable amount of time after the in-stream construction on the project is complete. The project will result in the restoration of more tidal marsh and transition zone habitats within the creek than the amount of habitat impacted by the project.

The Commission finds that the project, in implementing best management practices and restoring affected habitat within the creek, has been designed and conditioned herein to minimize harmful impacts resulting from fill placement.

b. **Faber Tract Marsh**. The Faber Tract Marsh is a 95-acre tidal salt marsh situated along the north side of San Francisquito Creek, and supports one of the largest populations of California Ridgway's rail in the region. It is also part of the USFWS' designated Central/South San Francisco Bay Recovery Unit for the California Ridgway's rail, and therefore is considered an important and sensitive area. It also supports a significant population of salt marsh harvest mouse, black rails and other marsh dependent species. Currently, Faber Tract Marsh contains little elevation diversity and is primarily tidal salt marsh with a few salt pannes.

To restore flood protection along the creek and protect species living in Faber Tract Marsh, low spots on the SFC north levee adjacent to the marsh would be repaired. In reinforcing the SFC north levee, the toe of the levee would be widened into the marsh to create a new gentler slope at a 6H:1V ratio to reduce erosion of the levee and adjacent marsh during levee overtopping. The widening of the toe of the levee would provide transitional habitat between the marsh and levee, thereby providing an ecosystem enhancement that will support mid and high marsh habitats. The project would also degrade an unmaintained levee between San Francisquito Creek and Outer Faber Marsh (final elevation would be 8 feet NAVD88) to allow floodwater to flow into the marsh, near the mouth of the creek, to further reduce upstream flood elevations and provide greater habitat connectivity. The proposed project would impact approximately 1.04 acres of tidal marsh habitats within Faber Tract Marsh.

As part of the mitigation package proposed by the permittee, and agreed to by the Resource Agencies, the project would restore and create approximately 1.7 acres of tidal marsh and high marsh transition habitats within and around Faber Tract Marsh. The project would include the creation of up to five marsh mounds in the Outer Faber Tract to provide high tide refugia for special status species. These mounds would provide relief from high tides and increased inundation due to flooding and sea level rise over time. The marsh mounds would require approximately 1,250 square feet of total fill (0.006 acres footprint for each of the five islands) and be constructed using imported fill material free from vegetation or plant material. The constructed elevation of the refugia islands would be approximately 8.8 feet (NAVD88) and would be planted with high profile marsh vegetation that would allow California Ridgway's rails and salt marsh harvest mice to escape current king tides. The islands are anticipated to settle to a final elevation of about 8.4 feet (NAVD88) at five years post construction. The proposed fill

volume for each island is similar to volumes that the Commission approved for the California State Coastal Conservancy to build high tide refugia habitat in other marsh locations around San Francisco Bay (BCDC Permit No. M2014.025.00) and was considered a minor amount of fill for habitat purposes.

Additionally, the permittee would provide approximately 6.0 acres of berm enhancements and revegetation of the levees surrounding Faber Tract Marsh (levees to the north, south and east of the marsh) to further provide high tide refuge areas for California Ridgway's rail and salt marsh harvest mouse. Berm enhancements would include removal of invasive species, planting of high marsh and transitional upland habitat necessary for these species, and monitoring of the revegetation efforts along these levees, as discussed below.

The levees surrounding Faber Tract Marsh and the high tide refugia islands would be planted with high marsh and transitional vegetation consistent with the levee locations and adjacent baylands. Planting vegetation is an important aspect of the project because the levees and boardwalks around the project site provide potential access for mammalian predators of the California Ridgway's rail and the salt marsh harvest mouse. Additionally, utility transmission towers and lines located within and adjacent to the marsh provide artificial perches and nesting platforms for raptors and other avian predators that may prey upon the Ridgway's rail and salt marsh harvest mouse. Predation rates are known to increase during extreme high tide events when appropriate cover is not available. The vegetation will provide an additional protective measure for these species during high tide. Together, this portion of the project would enhance approximately 7.7 acres of high marsh, transitional and high tide refugia habitats in and around Faber Tract Marsh.

Special Conditions II-B and II-C have been added herein to minimize the impacts of the project on tidal marsh habitats within and around Faber Tract Marsh. Additionally, Special Condition II-F has been added herein to ensure that habitat restoration/enhancements occur in a reasonable amount of time and within the construction period of the project. Special Condition II-D ensures that the permittee will monitor the success of the restoration efforts within the marsh. Special Conditions II-E-4 and II-E-7 have been added herein to further require protection of special status species from predation that may occur during high tides while the restoration of the high tide refuge habitat areas is underway.

Therefore, the Commission finds that the project as designed and conditioned herein will minimize impacts to Faber Tract Marsh and where impacts are unavoidable, the permittee will mitigate for the impacts through habitat restoration and will be responsible for monitoring the success of the restoration efforts.

c. **Wildlife.** Within the full project area, there are several state- and federally-listed species, or species of special concern that could be affected by the project, including Central California Coast steelhead, longfin smelt, California red-legged frog, green sturgeon, western snowy plover, black rail, salt marsh harvest mouse, California Ridgway's rail, San Francisco garter snake, California least tern, white-tailed kite, western pond turtle, western burrowing owl, northern harrier, San Francisco common yellowthroat, and Alameda song sparrow; other native and non-native fish species, and nesting birds. Within the Commission's jurisdiction, the species of concern excludes the fresh water species, such as the pond turtle and red-legged frog.

On December 30, 2015, NMFS issued a BO that determined that the proposed project is "not likely to jeopardize the continued existence of the threatened [Central California Coast] CCC steelhead (*Oncorhynchus mykiss*) or southern distinct population of green sturgeon, nor is it likely to adversely modify their critical habitat." However, NMFS determined that incidental take of CCC steelhead would occur during project construction, as juvenile steelhead are likely to be present during the dewatering of the site for construction. NMFS provided reasonable and prudent measures and conditions to minimize impacts to steelhead in the channel, which included measures to reduce harm during dewatering of the channel; monitoring and reporting of steelhead "take" during construction activities; building steelhead habitat complexity features (steelhead passage features) such as rock weirs or debris jams that offer refuge during future flood flows; and performing annual inspections of fish habitat features. Additionally, NMFS concluded that the proposed project "would adversely affect EFH [Essential Fish Habitat] for species managed within the Pacific Coast Groundfish and Coastal Pelagic Species Fishery Management Plans," specifically impacting Pacific Groundfish and Coastal Pelagic species that use the creek and adjacent subtidal areas. NMFS found that prey items within the project area for these coastal pelagic and groundfish species would likely take at least one year to re-establish in the area after construction activities have finished. NMFS provided conservation recommendations in the BO, which would avoid, minimize, or otherwise offset potential adverse effects on EFH. NMFS recommend in-kind compensatory mitigation at a ratio of 1:1 on-site or at a ratio of 3:1 if off-site to compensate for temporal impacts to EFH over an estimated 6.9 acres of channel habitat resulting from all construction activities during the proposed project. However, the permittee provided

NMFS with further information describing how the project as designed will offset temporary impacts to EFH, and on February 4, 2016 NMFS agreed with the permittee's justification.

The USFWS issued a BO on January 15, 2016 and found that, while the project will occur in an area thought to be habitat for a number of federally-listed species, the project was "not likely to adversely" affect these species because many of the species have not been found in or around the project site or will not occur in this area during construction activities. In the BO, USFWS did provide general conservation measures for protected species in the project area, including general site construction, water quality measures, use of pesticides, limits on operation and maintenance of levees, and vegetation management.

The USFWS determined the project as proposed would result in potential impacts to the Ridgway's rail and salt marsh harvest mouse in the form of increased likelihood of predation from increased habitat inundation in Outer Faber Marsh and removal of the upland refugia along the Outer Faber levee. During the consultation phase, the permittee and the USFWS entered into discussions to reduce impacts to listed species, particularly in regards to the marsh habitat in Faber Tract Marsh. In the BO, the USFWS provided conservation measures specific to Ridgway's rail and salt marsh harvest mouse, which it determined when implemented would ensure that the proposed project would not be likely to jeopardize the continued existence of these species. The project would minimize impacts to these species through implementation of the conservation measures related to predator management, vegetation removal, creation and restoration of high tide refuge, and other measures. The BO also requires conditions related to construction of specific habitat features, and monitoring of these features.

The CDFW issued a Streambed Alteration Agreement (SAA) on February 9, 2016, in which CDFW determined that the proposed project "could substantially adversely affect existing fish or wildlife resources." CDFW prepared the SAA for the project, which includes measures to protect fish and wildlife species within the project area. Without implementation of protection measures identified in the SAA, CDFW believes that the project would result in permanent loss of natural bed or bank; channel profile widening; loss of bank stability during construction; increased bank erosion; accelerated channel scour; increased turbidity; changes in pH; short-term release of contaminants; short-term changes in dissolved oxygen, water temperature, and stream flow; dryback of stream channels; permanent loss of wetland vegetation; permanent decline in vegetative diversity; colonization by exotic plant species; change in stream flow; temporary impacts to stream due to dewatering activities; direct take of aquatic species from pumps; construction of trenches that can capture terrestrial and semi-

aquatic organisms; temporary loss of wildlife connectivity to water source; temporary loss of terrestrial animal species' travel routes due to construction; disturbance or mortality of terrestrial, aquatic, and semi-aquatic fish and wildlife species; and disturbance to nesting birds. However, the SAA includes avoidance and minimization measures to reduce impacts to state-listed species by requiring a number of construction best management practices, on site monitoring by a CDFW approved biologist, and a number of other minimization measures. Additionally, the SAA also requires mitigation for both temporary and permanent impacts to habitat as a result of the project. The SAA also includes a requirement for a finalized, approved MMP for all habitat mitigation work (habitat restoration, enhancement and creation).

Special Condition II-E has been added herein to ensure that the project is in compliance with the NMFS BO, USFWS BO, and CDFW SAA regarding special status species living within tidal marsh habitats. Special Condition II-D requires the submittal of a final Mitigation and Monitoring Plan and approval by or on behalf of the Commission. It also ensures that the MMP will be consistent with monitoring required by the Resource Agencies and will provide long-term monitoring of all habitat restoration elements authorized herein and assess whether the restoration sites have met the required success criteria.

The Commission finds that the fill placed as part of this project provides substantial public benefits by protecting the surrounding areas from flooding and that the project as designed and conditioned herein will minimize impacts to Bay species and tidal marsh habitats, within San Francisquito Creek and Faber Tract Marsh.

C. **Water Quality.** The Bay Plan policies on Water Quality state, in part that "Bay water pollution should be prevented to the greatest extent feasible. The Bay's tidal marshes, tidal flats, and water surface area and volume should be conserved and, whenever possible, restored and increased to protect and improve water quality." They further state that "the Commission should consider the recommendations, decisions, and advice and authority of …the Regional Board," and that the Board's recommendations and decisions should be the basis for carrying out the Commission's water quality responsibilities. The policies also state that "New projects should be sited, designed, constructed and maintained to prevent or, if prevention is infeasible, to minimize the discharge of pollutants into the Bay…."

The project includes grading and the excavation of upland sediments within the channel to enhance flood capacity, restore marsh elevations and habitat functionality and connectivity in and around the project site. Through restoration and expansion of the lower reach of San Francisquito Creek, the project would result in a net increase in the surface area and volume of the Commission's Bay jurisdiction and improve the quality of tidal marsh habitat. The proposed project includes

enhancement of local ecosystems, and an enlarged Bay/creek interface, which will improve the passage for steelhead migrating from the Bay into the creek and upper watershed.

As is typical of construction projects, potential sources of water pollution include the use of small amounts of hazardous materials such as fuels, oils, concrete and asphalt in the construction of the proposed project elements. The permittee has stated that they would work with the selected construction contractor to prepare a Storm Water Pollution Prevention Plan (SWPPP) and would provide it to the Commission when available. This plan would include construction best management practices to minimize construction related discharges into the creek, including construction debris, no use of chemically-treated wood in the channel, minimizing disturbance and removal of vegetation, and minimizing disturbance to the creek where possible.

Adjacent to the project site, a former landfill is located near the Palo Alto Baylands Athletic Center. In addition, a few underground storage tanks that may have contained petroleum hydrocarbons are located along the creek. Currently, an automotive repair business is located along the left bank of the creek. The Final EIR found that the project is not likely to encounter any of the above-mentioned potential sources of contamination because they are located outside of the construction footprint and therefore, the project would not result in soil and groundwater contamination.

On April 7, 2015, the Water Board issued a conditional Water Quality Certification (WQC) for the project. The WQC requires the permittee to provide a revised dewatering plan to address both surface water and groundwater management to ensure the proposed discharges would meet applicable water quality objectives and to further reduce potential for pollutants to enter the Bay. In addition, it requires the permittee to test any imported soil that would be placed below top of bank, on levees and at any other locations where it has the potential to discharge to the creek or other waters of the State to ensure it does not have elevated levels of contaminants.

Regarding the discharge of storm waters through the channel, the permittee is required to obtain coverage under the NPDES General Permit for the Discharges of Stormwater Associated with Construction Activity (Water Board Order No. DWQ-2009-0009 as amended by Orders Nos. 2010-0014-DWQ and 2012-006-DWQ).

To ensure potential water quality impacts are minimized, Special Conditions II-C-2 through II-C-4 and II-J herein require that the permittee comply with the Water Quality Certification issued by the Water Board. Additionally, Special Condition II-B-1 ensures that soils brought on site will not have elevated levels of contaminants, and that the permittee tests the soils proposed for use on site. Special Condition II-C-1 requires the permittee to submit an updated dewatering plan to the Commission for review prior to initiating construction activities.

The project will result in the restoration of tidal marsh and transition zone habitats and will increase the Bay's water surface area as a result of widening the creek. Further, the permittee will take measures to ensure hazardous materials are properly contained, and that soils brought on site will be free from contaminants. Therefore, the Commission finds that the project as designed and conditioned herein will prevent pollution to the greatest extent feasible and that the Bay's water quality will be maintained.

D. **Mitigation**. The Bay Plan policies on mitigation state that "[p]rojects should be designed to avoid adverse environmental impacts to Bay natural resources….Whenever adverse impacts cannot be avoided, they should be minimized to the greatest extent practicable… and when unavoidable adverse impacts occur, mitigation should be required." The mitigation policies also state, in part, that "Individual compensatory mitigation projects should be sited and designed within a Bay-wide ecological context, as close to the impact site as practicable to: (1) compensate for the adverse impacts; (2) ensure a high likelihood of long-term ecological success; and (3) support the improved health of the Bay ecological system...." Additionally, these policies state, "[t]he amount and type of compensatory mitigation should be determined for each mitigation project based on a clearly identified rationale and analysis of a number of metrics. Further, the mitigation should, be provided prior to, or concurrently with the occurrence of project impacts." The Commission's policies allow for compensatory mitigation when necessary, as part of a mitigation program and further describe the components of a proposed mitigation and monitoring plan necessary to ensure success.

The permittee describes the project's impacts within the Commission's jurisdictions as occurring in tidal portions of San Francisquito Creek and Faber Tract Marsh and seeks to mitigate for these impacts through a combination of habitat enhancements and restoration. As proposed, the project would impact a total of 2.19 acres of existing habitats, including: 1.15 acres of tidal marsh habitat impacts from the excavation of sediment and vegetation within the creek, and approximately 1.04 acres of both temporary and permanent impacts to tidal marsh within Faber Tract Marsh during the creation of the wider levee toe slope on the SFC north levee and within the marsh. In impacting these habitats, wildlife species that are dependent on these habitats are also impacted as described in the fish and wildlife section above.

1. **Proposed Mitigation**. Mitigation for these impacts is both proposed by the permittee in the draft *Mitigation and Monitoring Plan* (December 2015) (MMP) and required by the Resource Agencies and the Water Board. To compensate for the impacts to the tidal creek and in Faber Tract Marsh, the permittee has proposed to create 1.68 acres of new marsh habitat within the Commission's jurisdiction and restore 1.76 acres of tidal marsh habitat: for a total of 3.44 acres of tidal marsh and transition zone habitat restoration. In widening the creek, the project will provide a low flow channel with adjacent marsh plain benches that

can accommodate flood flows, much like a natural creek would. This would improve the existing habitat and increase available low, medium and high marsh within the channel. This proposal is consistent with the requirements of the Water Board, USFWS and CDFW for mitigation of impacts to this portion of the project and is also subject to final approval and agreement by BCDC and these agencies.

NMFS, CDFW, and the Water Board identified potential impacts to native steelhead that migrate up San Francisquito Creek annually to spawning grounds higher in the watershed. These agencies found that increased water flow and reduced resting areas (high flow refugia) could impact this listed species as well as other native species that use the creek. To mitigate for this impact, the project includes the placement of high velocity refuge areas (steelhead passage features) within the creek, using large rock and root wads to create areas of calm water for resting and foraging fish. Of these, one is located within the Commission's jurisdiction. Additionally, the project would include the restoration (active and passive re-establishment) of about 1.74 acres of tidal marsh habitats within the creek, within BCDC's jurisdiction, to support fish and other wildlife utilizing the creek and adjacent habitats. The in-stream restoration work would be performed at a 1:1 ratio for temporary project impacts, and a 2:1 ratio for permanent habitat loss/impacts, as agreed upon by CDFW and the Water Board. Additionally, NMFS had originally recommended mitigation for in-stream impacts to Essential Fish Habitat, but the permittee provided NMFS with further information describing how the project as designed will offset temporary impacts to EFH, and NMFS agreed with the permittee's justification.

To additionally compensate for the impacts of the project on Faber Tract Marsh, the permittee proposed to provide habitat enhancements within the Faber Tract Marsh, with which the USFWS, CDFW and Water Board have agreed. These enhancements include: construction of up to five high tide refugia islands; enhancing approximately 6.0 acres of transition zone and high tide refugia habitat along the levees surrounding the marsh; removal of invasive species along the levees; and planting native mid and high marsh species on the high tide refugia islands and degraded levees. Together, all habitat creation, restoration and enhancement features provide 21.17 acres of enhanced marsh habitat, transition zone, and high tide refuge habitats, of which 9.44 acres would be within the Commission's jurisdiction. These habitat improvements would likely result in increased species survival during marsh inundation as a result of increased vegetative coverage in the refuge areas, which would reduce chances of predation.

In reviewing the Water Board's mitigation requirements, they appear to be consistent with the proposed mitigation package required by other agencies and for the project areas within the Commission's jurisdiction. However, the Water Board included a condition that increases mitigation requirements if the initially

required mitigation is not completed within 12 months time of when the associated impact first occurred. If mitigation construction does not occur within a year of the impacts, then the permittee would be responsible for an additional ten percent mitigation per year, as appropriate, on or adjacent to the project site, for the portion of the mitigation not completed within 12 months of the impact occurrence. Further, if on site mitigation is not available, the Water Board has required mitigation at an alternate site at higher ratios than currently proposed.

The project will have both temporary and permanent impacts on 2.19 acres of tidal marsh and high marsh transition habitats within the Commission's jurisdiction as a result of construction activities during the project and will improve a total of 9.44 acres of habitat around the project site, of which 3.44 acres will be tidal marsh and transition habitats. The Commission finds that the project as designed and conditioned herein will minimize impacts to tidal marsh areas, and where impacts are unavoidable, the permittee has proposed habitat improvements that constitute in-kind mitigation at a greater than 1:1 ratio within the Commission's jurisdiction. Additionally, the permittee will construct steelhead passage features along the creek to mitigate for impacts to steelhead trout resulting from increased flows that may occur as a result of the project. Special Conditions II-F-1 through II-F-4 have been included herein to ensure that the habitat improvements occur in a timely manner during construction of the project. The Commission finds that the permittee has proposed sufficient amounts of in-kind and out-of-kind mitigation to mitigate for the temporary and permanent impacts of the project.

2. **Monitoring.** The permittee submitted a draft *Mitigation and Monitoring Plan* (December 2015) and a draft *High Tide Refuge Habitat Enhancement Plan* (H.T. Harvey & Associates 2015), which identify several elements that will be monitored for successful habitat restoration and enhancement. The permittee is proposing annual monitoring of restoration areas over at least a five-year period, which will be overseen and conducted by a qualified biologist. The permittee is proposing to continue monitoring until defined and agreed upon success criteria are met. The permittee is proposing that target success criteria for the channel be set at 60% restored vegetative cover, which the permittee believes is reasonable given that the project site is in a tidal channel that experiences both erosional and depositional forces.

   Monitoring of the marsh berm enhancements and tidal marsh restoration efforts within Faber Tract would proceed once construction is complete and continue over five years, or until the success criteria have been met. The permittee is proposing 60% vegetative cover as target success criteria with no more than 5% invasive species. For the high tide refuge islands, the permittee is proposing success criteria of 70% vegetative cover with no more than 5% invasive species. In the past, the Commission has required 90% vegetative cover as the success

criteria for similar projects. The *Monitoring and Management Plan* is currently in a draft form. The Commission staff will continue to work with the permittee to reach agreement on required elements and success criteria of the monitoring program, prior to approval of the plan.

Special Conditions II-D-1 through II-D-7 require the permittee to submit a mitigation and monitoring plan and gain final approval from Commission staff regarding the monitoring of habitat restoration efforts and improvements. This special condition also ensures that discussions between the permittee and Commission staff continue regarding the appropriate success criteria for these habitat improvements and the appropriate monitoring timeline until an agreement is reached. The Commission finds that the project as conditioned herein will provide appropriate monitoring, approved by Commission staff, for the habitat improvements authorized and required herein. The permittee is required by Special Condition II-D-2 herein to submit annual reports on the restoration progress and consult with staff in the event that restoration success criteria are not achieved after the first five years of monitoring.

The Commission finds that the Special Conditions added herein minimize impacts to natural resources within the Commission's jurisdiction, and where impacts to natural resources are unavoidable, the Commission finds that the permittee will provide appropriate mitigation for the impacts. Further, the Commission finds the program for monitoring the restoration and habitat enhancements is generally consistent with the *Bay Plan* monitoring requirements, but is subject to further refinement and approval by Commission staff in the future.

E. **Public Access and Scenic Views.** The McAteer-Petris Act and the Bay Plan policies require that projects provide the maximum feasible public access consistent with the project, that proposed public access be compatible with wildlife, that projects be designed to preserve views to the Bay, and that any public access provided as part of the project remain viable as sea level rises.

1. **Maximum Feasible Public Access.** Section 66602 of the McAteer-Petris Act states that, "…water-oriented land uses along the bay shoreline are essential to the public welfare of the bay area…that existing public access to the shoreline and waters of the San Francisco Bay is inadequate and that maximum feasible public access consistent with a proposed project, should be provided." The Bay Plan Public Access Policy 1 states, "[a] proposed fill project should increase public access to the Bay to the maximum extent feasible…."

   In the project vicinity, the Bay Trail runs along Geng Road from Embarcadero Road to San Francisquito Creek (Exhibit D), continues along the southern bank of the project site to Friendship Bridge, and then north along the levee adjacent to East Palo Alto residences and the Palo Alto Baylands Nature Preserve. There are three existing access points to the Bay Trail located at: (1) Geng Road; (2) the Lucy Evans trail east of the Palo Alto Airport in Palo Alto; and (3) the O'Connor

Pump Station via Friendship Bridge in East Palo Alto. Additionally, there are three other informal access points along the levees that are currently used by the public and generally located near (1) Verbena Drive, (2) Daphne Way, and (3) East Bayshore Road on the SFC south levee.

The permittee will construct and enhance a number of new public access features both within and outside the Commission's jurisdiction, including newly, realigned levees trails, new boardwalk spanning the widened section of the creek, interpretive signage related to Faber Tract Marsh, and two new overlook areas for the public to sit and view San Francisquito Creek and the Bay.

Within the Commission's jurisdiction, the permittee will realign the SFC south levee and widen the creek. As a result, an approximately one-mile stretch of Bay Trail will be realigned and paved consistent with the existing trail in this area. The new boardwalk constructed in the Commission's jurisdiction would match the design of Friendship Bridge in accordance with the Bay Trail Design Guidelines. The boardwalk will include two viewing platforms, one on each end of the boardwalk, with interpretive signage and also include benches, and other public access amenities.

From May through October in 2016 and 2017, the portion of the Bay Trail portion located along the crown of levee between the golf course and San Francisquito Creek will be temporarily closed. After construction is complete, all recreational facilities will be available for full use by the public.

Because opportunities to increase public access within the project site are limited, the permittee will provide additional public access and recreational opportunities, and improvements outside of BCDC's jurisdiction (Exhibit D). These include: (a) widening sections of trail from 10 feet to 12-16 feet and placing an aggregate base along the trail to improve the trail surface along the SFC north levee, (b) providing an additional trail access point located at East Bayshore Road on the SFC north levee; (c) paving and improving sections of trail along the SFC south levee; and (d) further improving all access points by formalizing trail connections through the use of gate improvements, signage, and other public access amenities. Bollards and gates improvements at the access points would also serve to limit unauthorized recreational motor vehicle access to the trails, and protect pedestrians, bicyclists, and wildlife.

Special Conditions II-G-1 through II-G-7 have been included herein to ensure that the permittee will obtain final approval for all public access plans, construct the public access according to the submitted plans and maintain public access over time. The Commission finds that the public access improvements required herein will improve current public access trails, provide more formal access to the trails around San Francisquito Creek and will provide the maximum feasible public access consistent with the project.

2. **Minimize Impacts to Wildlife.** The Bay Plan Public Access policy 2 states, in part that "…public access to the Bay…should be provided in and through every new development in the Bay or on the shoreline…except in cases where public access would be clearly inconsistent with the project because of public safety considerations or significant use conflicts, including unavoidable, significant adverse effect on Bay natural resources. In these cases, in lieu access at another location preferably near the project should be provided." Additionally, Public Access policy 3 states in part, "…projects in [natural areas with sensitive wildlife] should be carefully evaluated in consultation with appropriate agencies to determine the appropriate location and type of access to be provided." Public Access policy 4 states, in part, that "[p]ublic access should be sited, designed and managed to prevent significant adverse effects on wildlife…."

   Through its BO, the USFWS excluded the use of the levees along the north, south and eastern side of Faber Tract Marsh for public access in order to protect listed species and their habitat. Limiting public access on top of these levees is protective of the state- and federally-listed Ridgway's rail and salt marsh harvest mouse found in and around Faber Tract Marsh. To further protect these and other species and in response to USFWS requirements, the permittee proposes to install a predator exclusion fence along the SFC north levee near the connection point to the Bay Trail and Friendship Bridge (Exhibit B). This fencing is intended to keep out mammalian predators and prevent humans from entering the area. The design of this fence is still in review, and staff will work with the permittee to authorize a fence that both reduces predator access and does not unnecessarily block views to the Bay. Special Condition II-G-3 included herein ensures that the permittee will continue to work with Commission staff to determine appropriate heights and materials that will minimize impacts to wildlife and maximize views of the Bay and Faber Tract Marsh.

3. **Viable Public Access and Maintenance.** Bay Plan policies on public access state that "[p]ublic access should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding." The project would provide public access along the crown of the levees on either side of the San Francisquito Creek. Bay Plan Public Access policy 6 states, "[w]henever public access to the Bay is provided as a condition of development, on fill or on the shoreline, the access should be permanently guaranteed…any public access provided as a condition of development should either be required to remain viable in the event of future sea level rise or flooding, or equivalent access consistent with the project should be provided nearby."

   The public access proposed by the permittee is located primarily on levee tops, on and adjacent to a bridge crossing the creek, and a boardwalk over newly created marsh (Exhibit D). The flood protection levees and bridge are designed to the 100-year flood level, with a 100-year tide and sea level rise (26 inches) for the life of the project (2060). Beyond 2060, the permittee has stated that

earthen levees included in the project have the potential to be raised further by adding earthen baskets or additional floodwalls of synthetic piling and that existing steel sheet pile floodwalls could be raised by welding additional steel sheets to the existing structure. The permittee used the Our Coast Our Future (OCOF) projections (Exhibit M) to illustrate that even with about five feet of sea level rise at 2100, which is the best available data at this time, flooding would likely occur within the Faber Tract Marsh and the golf course to the north and south of the creek, but that the levees are mostly not overtopped based upon the current design. Therefore, the public access would remain viable through the life of the project.

The Commission finds that the public access provided by the project as designed and conditioned herein will provide the maximum feasible public access, protect adjacent wildlife refuge areas and species within those areas, and remain viable over the life of the project.

F. **Bay Plan Priority Use Areas.** Portions of the project are located within two priority use areas designated in the Bay Plan as shown in Bay Plan Map 7: the northern levee adjacent to Faber Tract is designated as a Waterfront Park priority use area and Faber Tract is designate as a Wildlife Refuge priority use area. The Refuge has closed the public access along these levees to protect Ridgway's rail and salt marsh harvest mouse inhabiting Faber Tract Marsh, thereby limiting the use as a Waterfront Park. The project would provide interpretive signage near Friendship Bridge and the new boardwalk to provide information related to Faber Tract Marsh and the wildlife within the area, thus supporting the Waterfront Park use in the adjacent area, while protecting sensitive species and their habitat.

In addition, the Palo Alto Golf Course (golf course) is designated as a waterfront park priority use area. The project would permanently impact a small portion (8.6 acres) of this use by decreasing the size of the golf course to widen the creek, providing additional flow capacity and creating new tidal marsh. Access to the golf course would be temporarily closed during the project and while the City of Palo Alto works on a planned reconfiguration of the golf course. In approximately two years, recreational opportunities at the golf course would be fully restored.

The Wildlife Priority Use area would be impacted during the construction of the high tide refugia, transitional slopes and levee repair. While there will be some disruption to wildlife use, the construction will occur during environmental work windows from June 15th to October 15th. The work on the toe of the levees is limited to a few small areas, and care will be taken to avoid harm to listed species through best management practices. Work within the marsh is expected to be conducted mostly with hand-operated tools, and therefore will limit impacts on wildlife use of the area.

The Commission finds that the project as designed would temporarily affect the Waterfront Park and Wildlife Refuge priority use areas, but after construction is complete, the use would be restored. The exception to this is the limited use of the levee along Faber Tract, but interpretive signage supports the designated Waterfront Park use and the closure of the levee is consistent with wildlife protection. Therefore, the project as authorized and conditioned is consistent with the Waterfront Park and Wildlife Refuge priority use designations of the Bay Plan.

G**. Protection of Shoreline.** Bay Plan policies on Shoreline Protection Policy 1, states, in part, "[n]ew shoreline protection projects and maintenance or reconstruction of existing projects and uses should be authorized if: (a) the project is necessary to provide flood or erosion protection for (i) existing development, use or infrastructure, or (ii) proposed development, use or infrastructure that is consistent with other Bay Plan policies…(c) the project is properly engineered to provide erosion control and flood protection for the expected life of the project based on a 100-year flood event that takes future sea level rise into account… [and] (e) the protection is integrated with current or planned adjacent shoreline protection measures…."

Bay Plan Policy 3 requires that authorized shoreline protection projects be regularly maintained according to a long-term maintenance program and assure protection from tidal erosion and flooding and minimize impacts to natural resources during the life of the project. Shoreline Protection Policy 4 requires that whenever feasible, shoreline protection projects should include nonstructural elements that include elements for Bay ecosystem enhancement and that in shoreline areas that support marsh vegetation, the Commission should require the inclusion of project provisions for establishing marsh and transitional habitats as part of shoreline protection measures. Shoreline Protection Policy 5 requires that impacts to natural resources and public access from new shoreline protection projects be avoided, mitigated or alternative public access should be provided.

In order to improve shoreline protection, the project would construct a steel sheet pile floodwall along approximately 500 linear feet near the O'Connor Way Pump Station and Friendship Bridge to connect the outfall structure at the pump station to the adjacent upstream and downstream levees for shoreline protection. Approximately 200 linear feet of the floodwall would be within the Commission's shoreline band jurisdiction, with portions of the floodwall embedded within the levee on the southern edge of Faber Tract Marsh. The sheet pile floodwall would provide continuous shoreline protection and strengthen the levee against higher volumes and velocities of floodwater that the project would accommodate.

To restore flood protection along the creek, low spots on the unmaintained levee north of San Francisquito Creek would be repaired with engineered soils to strengthen the levee and accommodate anticipated future high flow events. The final height of the levee would be a maximum of 13 feet (NAVD88). In reinforcing

the levee, the toe of the levee within Faber Tract would be widened and a new slope at six horizontal to one vertical foot would be created to protect against levee erosion due to flow overtopping, and reduce potential impacts to the adjacent marsh. The widening of the toe of the levee will stabilize it without the need for placing riprap within the marsh.

In accordance with Policy 4, the permittee anticipates that tidal marsh vegetation and transition zone habitats would migrate up the levee slopes adjusting to the changing hydrology and would remain present with two feet of predicted sea level rise. However, there is potential for substantial loss of tidal marsh habitat within the project area with predicted sea level rise of about five feet, but these impacts would be beyond the current planned life of the project. Regarding Shoreline Protection Policy 5, the project would have potential impacts to habitat and wildlife, which it is addressing through mitigation measures discussed under the mitigation section above.

The project includes the placement of minor amounts of fill for shoreline protection and the use of habitat features to support and restore marsh vegetation within the creek. Special Conditions II-H herein requires that all riprap installed during the project will be appropriately designed and maintained over the life of the project. Additionally, Special Conditions II-B and II-C require construction best management practices to minimize impacts to adjacent marsh and aquatic environments during project construction. Impacts associated with the placement of riprap, construction of floodwalls and levees will be mitigated through habitat restoration in San Francisquito Creek and Faber Marsh and as required in Special Condition II-F.

Special Conditions have been added herein to ensure that the shoreline improvements are built to appropriate engineering safety standards and undergo plan review and that the shoreline protection features (levees, floodwalls, riprap, etc.) are appropriately maintained over the life of the project. The project has also been designed to account for reasonable foreseeable flooding and stormwater hazards over the life of the project.

With the Special Conditions included above, the Commission finds that the project design will be constructed in accordance with sound safety standards, offer protection to persons and property against flooding or stormwater hazards over the life of the project, will minimize impacts to natural resources, and that the authorized fill will establish a permanent shoreline to protect residents in areas adjacent to the creek.

H. **Review Boards**

1. **Engineering Criteria Review Board.** The Engineering Criteria Review Board did not evaluate the proposed project.

2. **Design Review Board.** Given the nature of the proposed improvements, the Design Review Board did not evaluate the proposed project.

I. **Environmental Review.** In accordance with the California Environmental Quality Act (CEQA) requirements, the JPA certified the Final Environmental Impact Report (FEIR) for the project on October 25, 2012 (JPA Resolution Number 12-10-25A). The FEIR found that the project would have significant impacts to some special status species and their habitat areas, air quality, and recreation, of which most impacts could be reduced to a less-than-significant level through minimization and mitigation measures. However, the CEQA review found that the project would likely result in significant and unavoidable effects on air quality associated with construction of various project elements during all project phases. Additionally, the project would have significant and unavoidable effects on recreation due to a reduction in the size of the existing golf course (loss of 7.4 acres of golf course) as a result of the levee realignment and creek widening. The JPA has committed to all feasible mitigation to reduce impacts on air quality, but the residual effect is still likely to be significant. The proposed mitigation measure for recreation impacts is outside the JPA's jurisdiction and therefore cannot be guaranteed. No additional feasible mitigation for recreational impacts is available.

The JPA adopted a Statement of Overriding Considerations, which acknowledged the existing flood risks along San Francisquito Creek associated with lack of adequate capacity in the creek, and considered the analysis of all the project outcomes. The JPA found that the economic, social, and environmental benefits of meeting the project's flood protection goals outweigh the significant and unavoidable air quality and recreation impacts associated with the project's construction and operation. The Water Board agreed on April 7, 2015 that the FEIR appropriately addressed the foreseeable potential environmental impacts from the project.

J. **Conclusion**. For all the above reasons, the Commission finds, declares, and certifies that, subject to the Special Conditions stated herein, the project authorized herein is consistent with the McAteer-Petris Act, the *San Francisco Bay Plan,* the Commission's Regulations, the California Environmental Quality Act, and the Commission's Amended Management Program for the San Francisco Bay segment of the California coastal zone.

IV. Standard Conditions

A. **Permit Execution**. This permit shall not take effect unless the permittee(s) execute the original of this permit and return it to the Commission within ten days after the date of the issuance of the permit. No work shall be done until the acknowledgment is duly executed and returned to the Commission.

B. **Notice of Completion**. The attached Notice of Completion and Declaration of Compliance form shall be returned to the Commission within 30 days following completion of the work.

C. **Permit Assignment**. The rights, duties, and obligations contained in this permit are assignable. When the permittee(s) transfer any interest in any property either on which the activity is authorized to occur or which is necessary to achieve full compliance of one or more conditions to this permit, the permittee(s)/transferors and the transferees shall execute and submit to the Commission a permit assignment form acceptable to the Executive Director. An assignment shall not be effective until the assignees execute and the Executive Director receives an acknowledgment that the assignees have read and understand the permit and agree to be bound by the terms and conditions of the permit, and the assignees are accepted by the Executive Director as being reasonably capable of complying with the terms and conditions of the permit.

D. **Permit Runs With the Land**. Unless otherwise provided in this permit, the terms and conditions of this permit shall bind all future owners and future possessors of any legal interest in the land and shall run with the land.

E. **Other Government Approvals**. All required permissions from governmental bodies must be obtained before the commencement of work; these bodies include, but are not limited to, the U. S. Army Corps of Engineers, the State Lands Commission, the Regional Water Quality Control Board, and the city or county in which the work is to be performed, whenever any of these may be required. This permit does not relieve the permittee(s) of any obligations imposed by State or Federal law, either statutory or otherwise.

F. **Built Project must be Consistent with Application**. Work must be performed in the precise manner and at the precise locations indicated in your application, as such may have been modified by the terms of the permit and any plans approved in writing by or on behalf of the Commission.

G. **Life of Authorization**. Unless otherwise provided in this permit, all the terms and conditions of this permit shall remain effective for so long as the permit remains in effect or for so long as any use or construction authorized by this permit exists, whichever is longer.

H. **Commission Jurisdiction**. Any area subject to the jurisdiction of the San Francisco Bay Conservation and Development Commission under either the McAteer-Petris Act or the Suisun Marsh Preservation Act at the time the permit is granted or thereafter shall remain subject to that jurisdiction notwithstanding the placement of any fill or the implementation of any substantial change in use authorized by this permit. Any area not subject to the jurisdiction of the San Francisco Bay Conservation and Development Commission that becomes, as a result of any work or project authorized in this permit, subject to tidal action shall become subject to the Commission's "bay" jurisdiction.

I. **Changes to the Commission's Jurisdiction as a Result of Natural Processes**. This permit reflects the location of the shoreline of San Francisco Bay when the permit was issued. Over time, erosion, avulsion, accretion, subsidence, relative sea level change, and other factors may change the location of the shoreline, which may, in turn, change the extent of the Commission's regulatory jurisdiction. Therefore, the issuance of this permit does not guarantee that the Commission's jurisdiction will not change in the future.

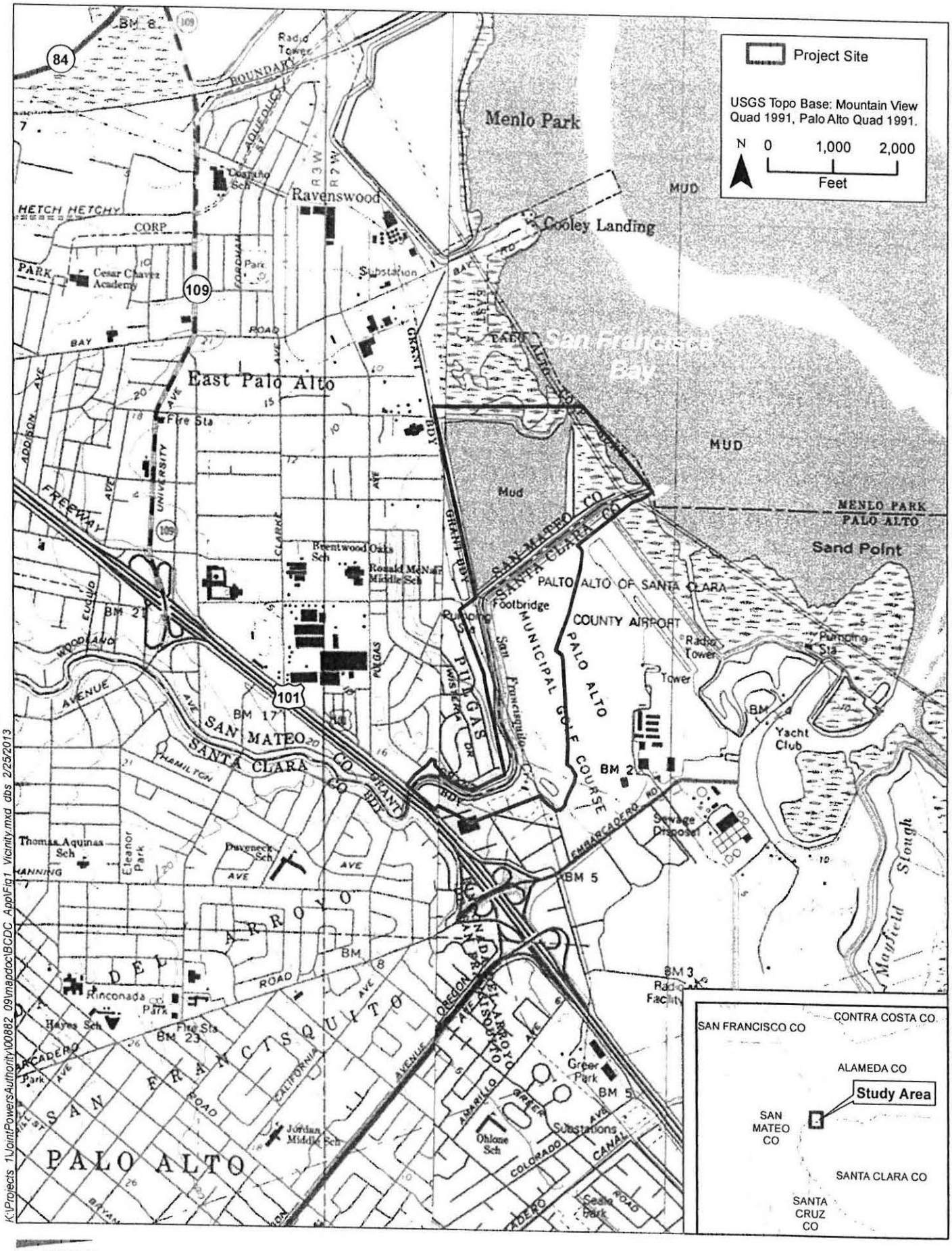
J. **Violation of Permit May Lead to Permit Revocation**. Except as otherwise noted, violation of any of the terms of this permit shall be grounds for revocation. The Commission may revoke any permit for such violation after a public hearing held on reasonable notice to the permittee(s) or their assignees if the permit has been effectively assigned. If the permit is revoked, the Commission may determine, if it deems appropriate, that all or part of any fill or structure placed pursuant to this permit shall be removed by the permittee(s) or their assignees if the permit has been assigned.

K. **Should Permit Conditions Be Found to be Illegal or Unenforceable**. Unless the Commission directs otherwise, this permit shall become null and void if any term, standard condition, or special condition of this permit shall be found illegal or unenforceable through the application of statute, administrative ruling, or court determination. If this permit becomes null and void, any fill or structures placed in reliance on this permit shall be subject to removal by the permittee(s) or their assignees if the permit has been assigned to the extent that the Commission determines that such removal is appropriate. Any uses authorized shall be terminated to the extent that the Commission determines that such uses should be terminated.

L. **Permission to Conduct Site Visit**. The permittee(s) shall grant permission to any member of the Commission's staff to conduct a site visit at the subject property during and after construction to verify that the project is being and has been constructed in compliance with the authorization and conditions contained herein. Site visits may occur during business hours without prior notice and after business hours with 24-hour notice.

M. **Abandonment**. If, at any time, the Commission determines that the improvements in the Bay authorized herein have been abandoned for a period of two years or more, or have deteriorated to the point that public health, safety or welfare is adversely affected, the Commission may require that the improvements be removed by the permittee(s), its assignees or successors in interest, or by the owner of the improvements, within 60 days or such other reasonable time as the Commission may direct.

O. **In-Kind Repairs and Maintenance.** Any in-kind repair and maintenance work authorized herein shall not result in an enlargement of the authorized structural footprint and shall only involve construction materials approved for use in San Francisco Bay. Work shall occur during periods designated to avoid impacts to fish and wildlife. The permittee(s) shall contact Commission staff to confirm current restricted periods for construction.



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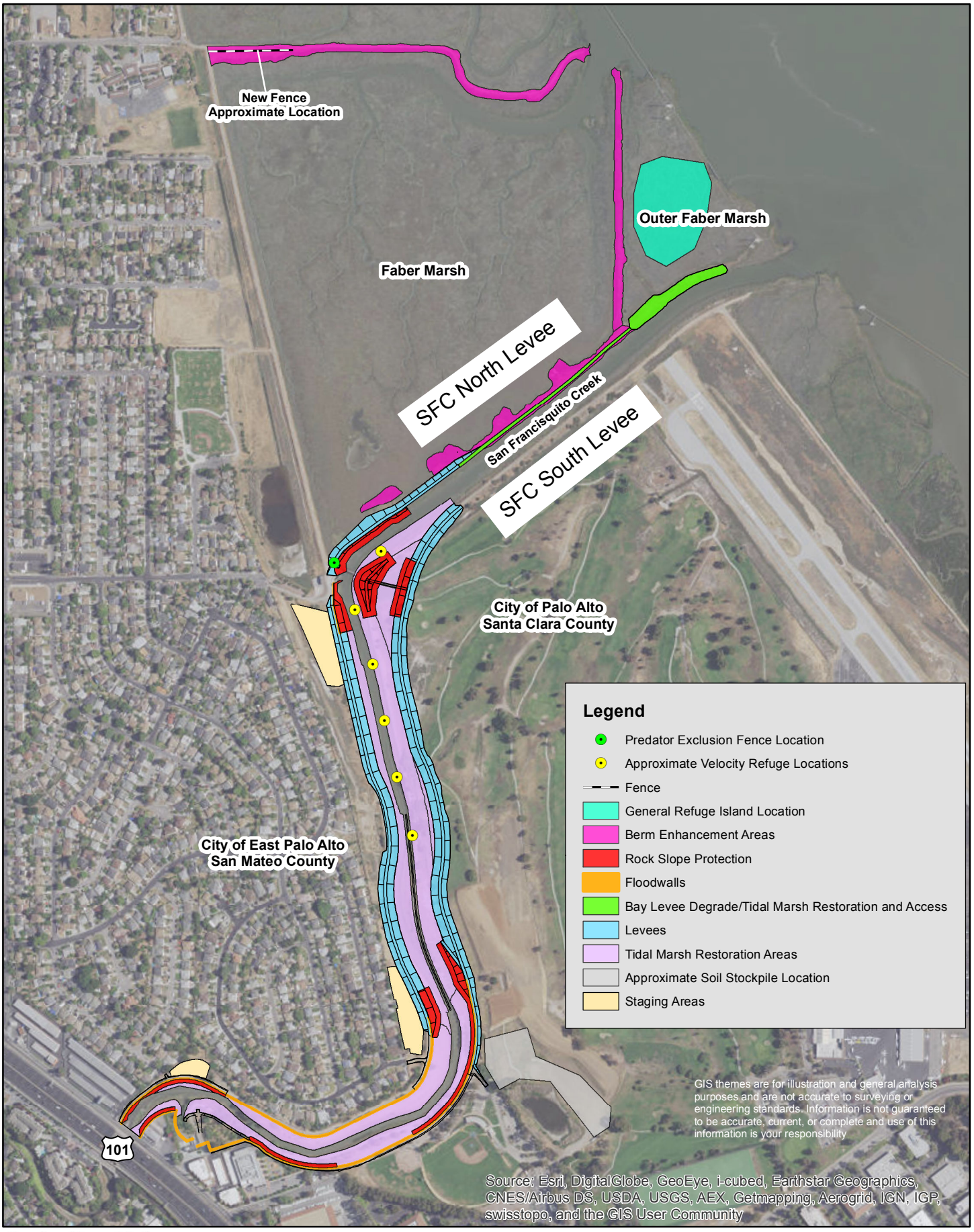
ICF INTERNATIONAL

Exhibit A

Vicinity Map

San Francisquito Creek Flood Reduction, Ecosystem Restoration & Recreation Project



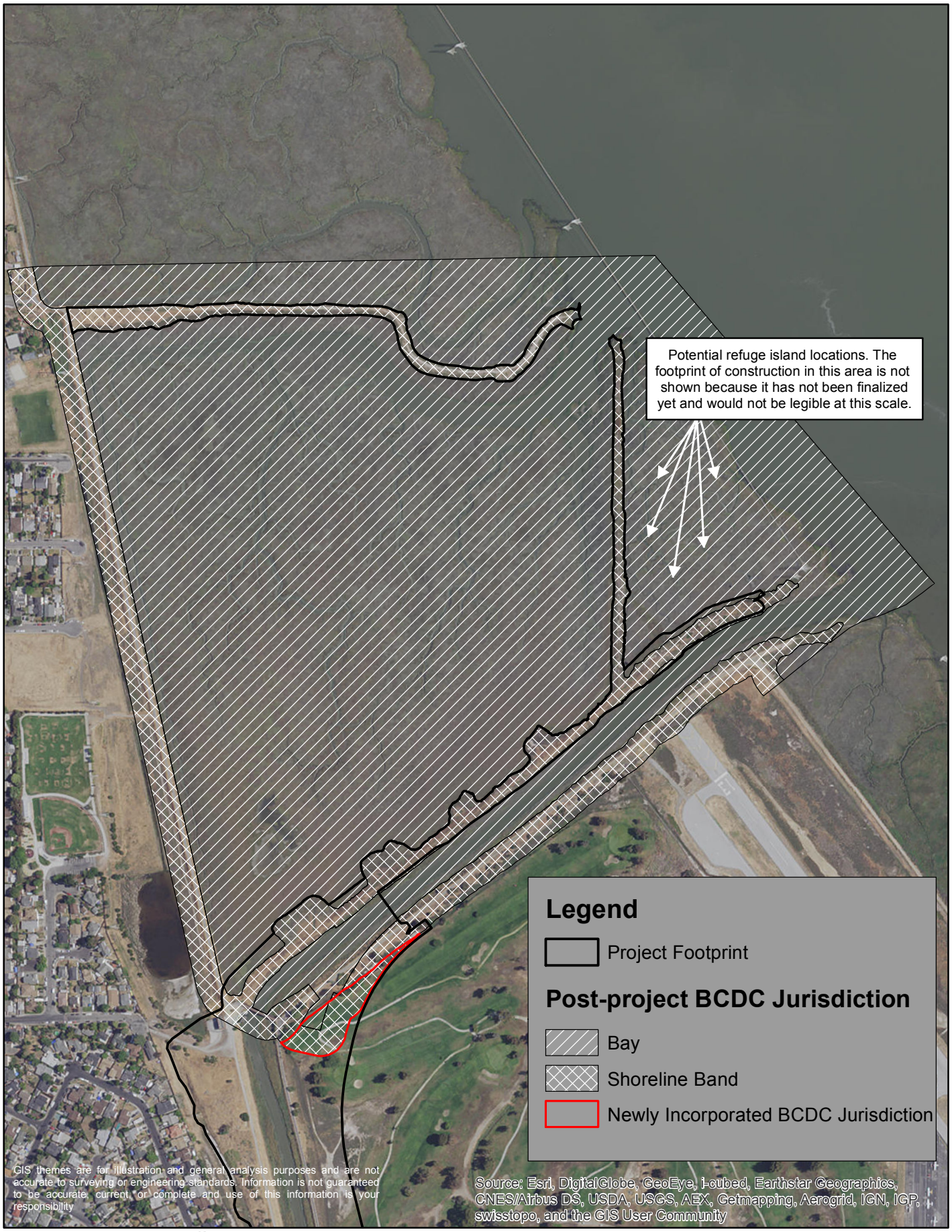
Santa Clara Valley Water District

N
W E
S

0 205 410 820 1,230 Feet

Exhibit B

San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project from San Francisco Bay to Highway 101



Santa Clara Valley Water District

N W E S

0 110 220 440 660 880 Feet

Exhibit C

San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project from San Francisco Bay to Highway 101

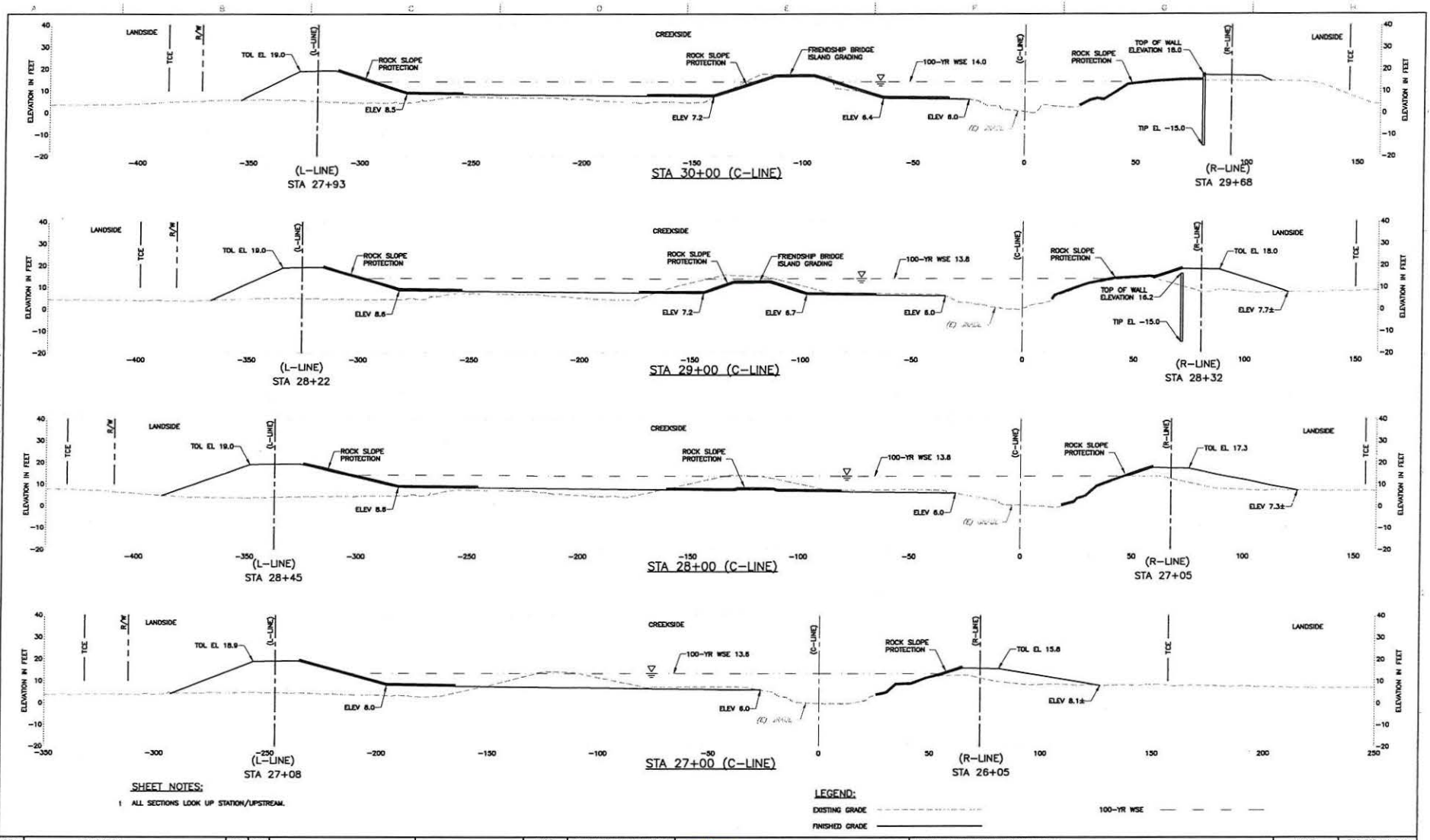
Santa Clara Valley Water District

N W E S

0 150 300 600 900 1,200 Feet

Exhibit D

San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project from San Francisco Bay to Highway 101



SHEET NOTES:

1 ALL SECTIONS LOOK UP STATION/UPSTREAM.

LEGEND:

EXISTING GRADE

FINISHED GRADE

100-YR WSE

REV	DESCRIPTION	DATE	APPR.
	DRAFT 100% JULY 2015		

DOCUMENT NUMBER/SFC_LP-C-1028-XXXXXXX

HDR

DATE: JULY 2015
DESIGN: L. JONES
DRAWN: H. SUAREZ
CHECKED: P. HRADILEK

ENGINEERING CERTIFICATION

PROJECT ENGINEER DATE

SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

ACCEPTED BY DISTRICT

PROJECT ENGINEER DATE

PROJECT NAME AND SHEET DESCRIPTION:

SAN FRANCISQUITO CREEK FLOOD REDUCTION, ECOSYSTEM RESTORATION, & RECREATION PROJECT

CROSS SECTIONS – (C-LINE) STA 27+00 TO 30+00

SCALE: H:1" = 20' V:1" = 20'

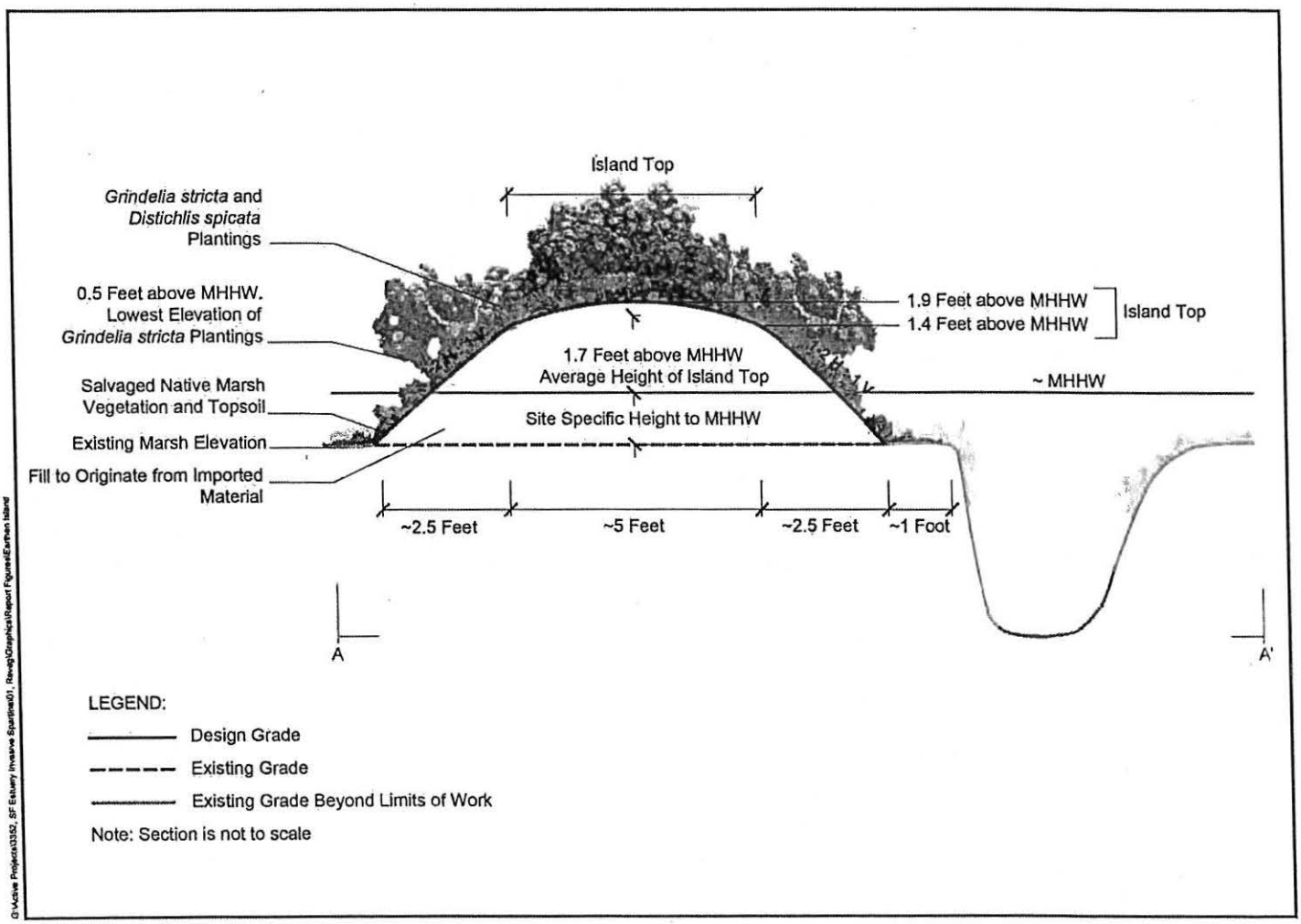
VERIFY SCALES: BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PROJECT NUMBER: 26284002

SHEET CODE: X-7

SHEET NUMBER: 70 OF 119

Exhibit E



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H.T. HARVEY & ASSOCIATES
Ecological Consultants

High Tide Refuge Island Typical Cross-Section
San Francisquito Creek Flood Protection Project
Conceptual High Tide Refuge Habitat Creation and Revegetation Planning (3700-01)
December 2015

Exhibit F